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A REVIEW OF THE GENUS *EUDERCES* LECONTE
(COLEOPTERA: CERAMBYCIDAE: TILLOMORPHINI)

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The genus *Euderces* LeConte is revised with 57 recognized species, 26 of which are new. All but two known species are illustrated, previously known species are redescribed, and a key is provided. *Cleozona* Bates is placed in synonymy with *Euderces*. New *Euderces* species described are *E. andersoni*, *E. auricaudus*, *E. basimaculatus*, *E. batesi*, *E. biplagiatus*, *E. brailovskyi*, *E. elvirae*, *E. grossistriatus*, *E. noguerai*, *E. obliquefasciatus*, *E. perplexus*, *E. postipallidus*, and *E. propinquus* from Mexico; *E. tibialis*, *E. turnbowi* and *E. wappesi* from Mexico and Guatemala; *E. azureus*, *E. proximus* and *E. succinus* from Guatemala; *E. guatemalensis* from Guatemala and Honduras; *E. bellus* and *E. disparicrus* from Mexico, Guatemala and Honduras; *E. pusillus* from Mexico, Guatemala, and Costa Rica; *E. linsleyi* from Panama and Costa Rica; *E. paraposticus* from Colombia, and *E. venezuelensis* from Venezuela. New synonymies in *Euderces* are *E. cribratus* Bates = *E. laevicauda* Bates; *E. fenysei* Linsley = *E. cribripennis* Bates; *E. auricomis* Chemsak = *E. cleriformis* Bates; *E. picipes occidentalis* Linsley = *E. picipes* (Fabricius); and *E. reichei exilis* Casey = *E. reichei* LeConte. The subspecies *E. bicinctus peninsularis* (Linsley) is removed from synonymy. *Eplophorus guerinii* (Chevrolat), *E. posticus* (Pascoe) and *E. walli* Chevrolat are transferred to *Euderces*.

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Euderces LeConte, with 57 known species, occurs from North America to South America, and distribution appears to be centered in southern Mexico and Guatemala. Only four species are presently known to occur north of Mexico, ten species to the south between Honduras and Panama, and six species in South America. None are known from the West Indies. Adults belonging to this genus appear to mimic ants in both appearance and movement, and are sometimes collected in company with foraging ants. Some species may be collected on flowers, some running on

dead wood, and others by beating foliage. The typical elytral pattern of median eburneous fasciae and preapical pubescent fasciae together produce the illusion of a constriction resembling the narrow petiole characteristic among ants, and this, along with size, color, style and speed of movement, and an often forward-curved antennal posture (Fig. 1), contributes to the strong ant-like appearance. Little is known about the larval biology, and because of the scarcity of many of the species in collections, comprehensive knowledge of distributions is lacking.

MATERIALS AND METHODS

Over 1,900 adult specimens were examined in the course of this study, generously provided from the collections of a number of institutions and individuals. These are indicated in the text by codens, the key to which appears in the "Acknowledgments" section at the conclusion of the paper. Studies were based on examination of external structural features of adult specimens. No attempt has been made to draw further systematic or evolutionary conclusions by means of cladistic analysis or examination of internal morphology. "Length" of a specimen is taken to mean the length of the body from mandibles to elytral apex. Arrangement of species in the text is alphabetical. The partial habitus figures are intended to provide a clear illustration of important structural characters rather than a complete view. Figure 7 and following figures are shown at the same scale (except figures with scale bar added). In the case of several commonly collected and widespread species, the large number of specimens seen has necessitated mapping rather than enumerating individual specimen data. These maps (Figs. 2-6) reflect examined material only.

Tribe Tillomorphini Lacordaire

The tribe Tillomorphini is composed of a number of homogenous genera composed of species of small size, usually with eburneous elytral fasciae. Two of these genera are represented in North and Central America where most *Euderces* are found. Of these, *Tetranodus* Linell may be distinguished by the enlarged third to sixth antennal segments of the males, by the single, transverse eburneous fascia very narrowly divided at the sutural margin, and by the pointed inner apex of the upper eyelobe; and *Pentanodes* Schaeffer, which may be distinguished by the non-emarginate eyes and the somewhat inflated third to seventh antennal segments of the males.

Genus *Euderces* LeConte

Euderces LeConte, 1850:30; 1873:325; Thomson, 1860:217; 1864:428; Lacordaire, 1869:89; Provancher, 1877:604; Bates, 1880:59; 1885:304;

LeConte & Horn, 1883:305; Leng, 1887:24, 195; Schaeffer, 1904:223; Linsley, 1935:87; 1964:180; Knoll, 1946:225; Linsley, 1964:180; Chemsak, 1969:312; Hovore, 1988:15. (TYPE SPECIES: *Callidium picipes* Fabricius, monobasic)
Eplophorus Chevrolat, 1861:248; Linsley, 1935:87; Chemsak, 1969:307. (TYPE SPECIES: *Clytus spinicornis* Chevrolat, monobasic)
Apelocera Chevrolat, 1862:61; Thomson, 1864:195, 428; Aurivillius, 1912:420. (TYPE SPECIES: *Apelocera Waltli* Chevrolat (Thomson designation, 1864).)
Apilocera; Chevrolat, 1862:535; Pascoe, 1866:295; Bates, 1880:60; 1885:305.
Cleozona Bates, 1874:223; 1880:60; Linsley, 1935:87; Chemsak, 1969:304. (TYPE SPECIES: *Cleozona pulchra* Bates, monobasic) NEW SYNONYMY.

DESCRIPTION. — Form small, ant-like. Head with eyes divided, upper and lower lobes connected by a narrow, glabrous line, upper lobes small, rounded at inner apices, rarely lacking; antennae 11-segmented, filiform, third segment longest, segments three to five often spinose or dentate at apex. Pronotum elongate or globose, unarmed, usually impressed across base. Elytra basally gibbose or not, each elytron with one or two transverse or oblique, raised, eburneous fasciae not attaining suture; disk usually with median area densely cribrate-punctate. Abdomen with first sternite longer than second and third together. Male prosternum usually bearing scattered distinct, coarse punctures at base, female prosternum lacking distinct punctures.

REMARKS. — The genus *Euderces* was proposed by LeConte (1850) to accommodate *Callidium picipes* Fabricius. One of the characters given at that time was the presence of a very small spine at the apex of the third antennal segment. In 1861, Chevrolat described the genus *Eplophorus* to include species with distinctly spinose third antennal segments. Lacordaire (1869) then synonymized *Apelocera* with *Eplophorus*. Linsley (1964) synonymized *Eplophorus* under *Euderces*, having noted wide variation in antennal spines among what otherwise appears to be a compact and monophyletic group of species. The most recent treatment of the genus was by Chemsak (1969), in which several new species were characterized.

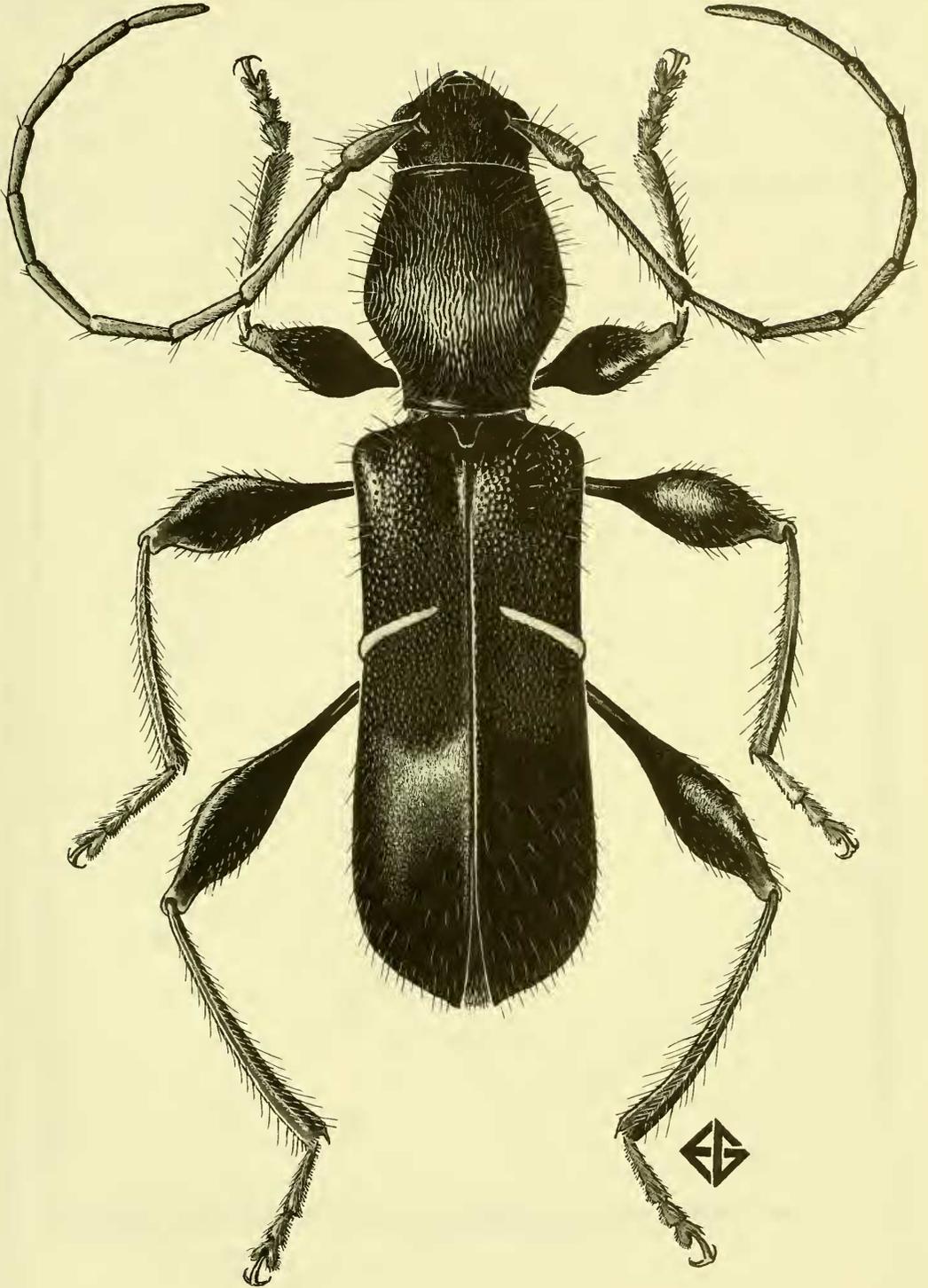


FIGURE 1. *Euderces picipes* (Fabricius), male.

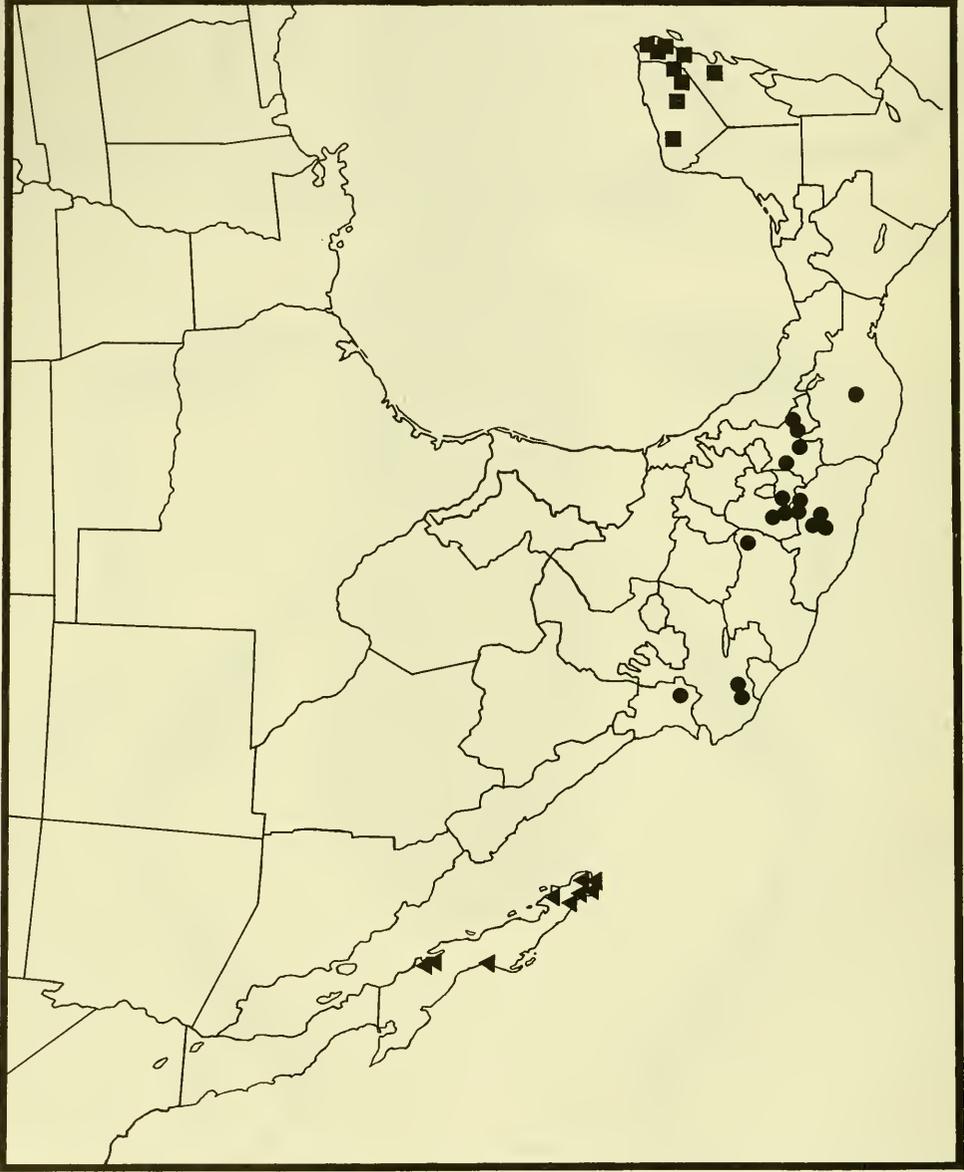


FIGURE 2. Known distribution of *Eudermes cleriformis* (Bates) [open circles]; *E. boucardi* (Chevrolat) [closed circles]; *E. dimidiatipennis* (Melzer) [open squares]; *E. posticus* (Pascoe) [closed squares]; *E. parapositicus*, new species [triangle]; and *E. venezuelensis*, new species [cross].

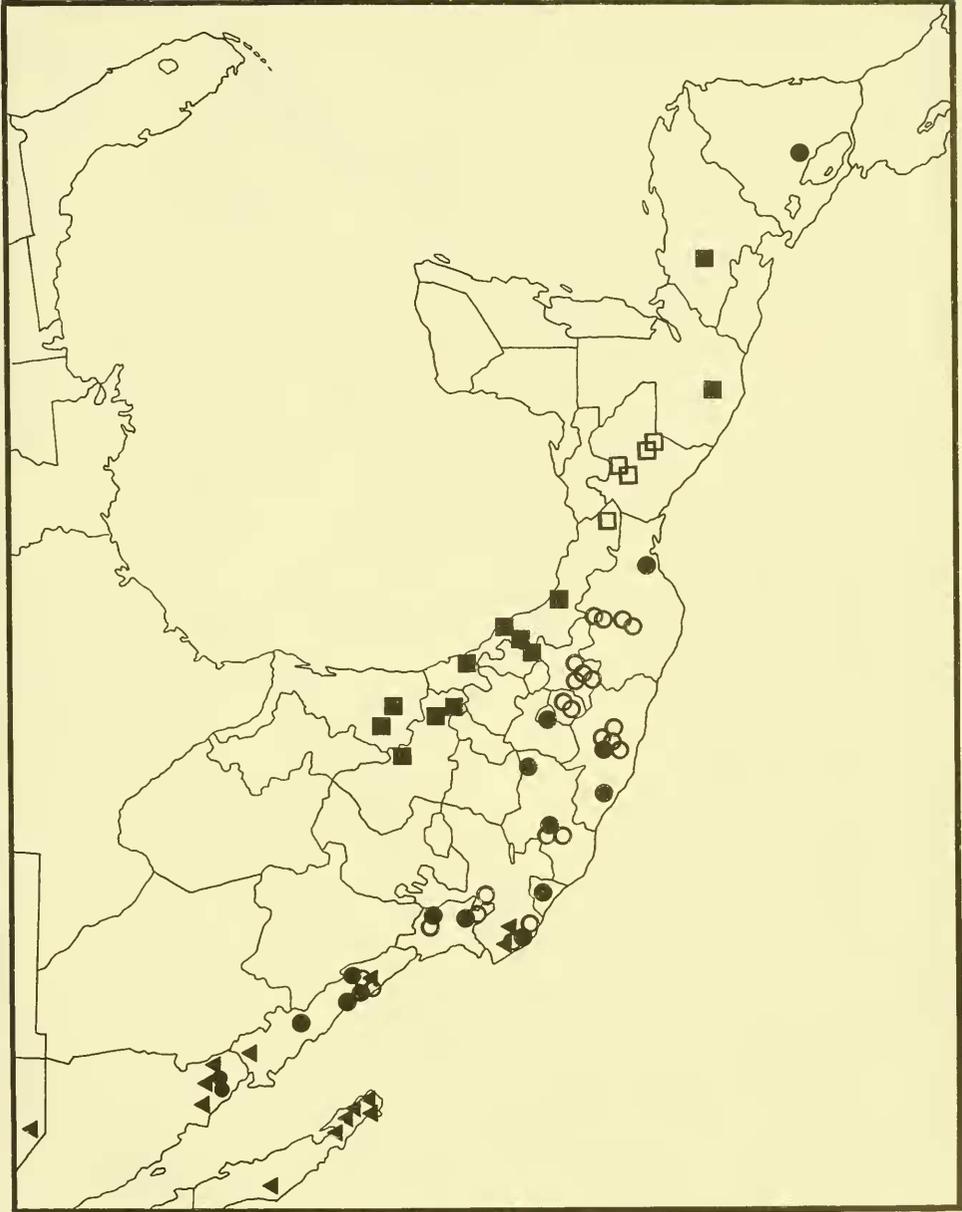


FIGURE 3. Known distribution of *Euderces cribripennis* Bates [circles]; *E. parallelus* LeConte [triangles]; and *E. yucatecus* (Bates) [squares].

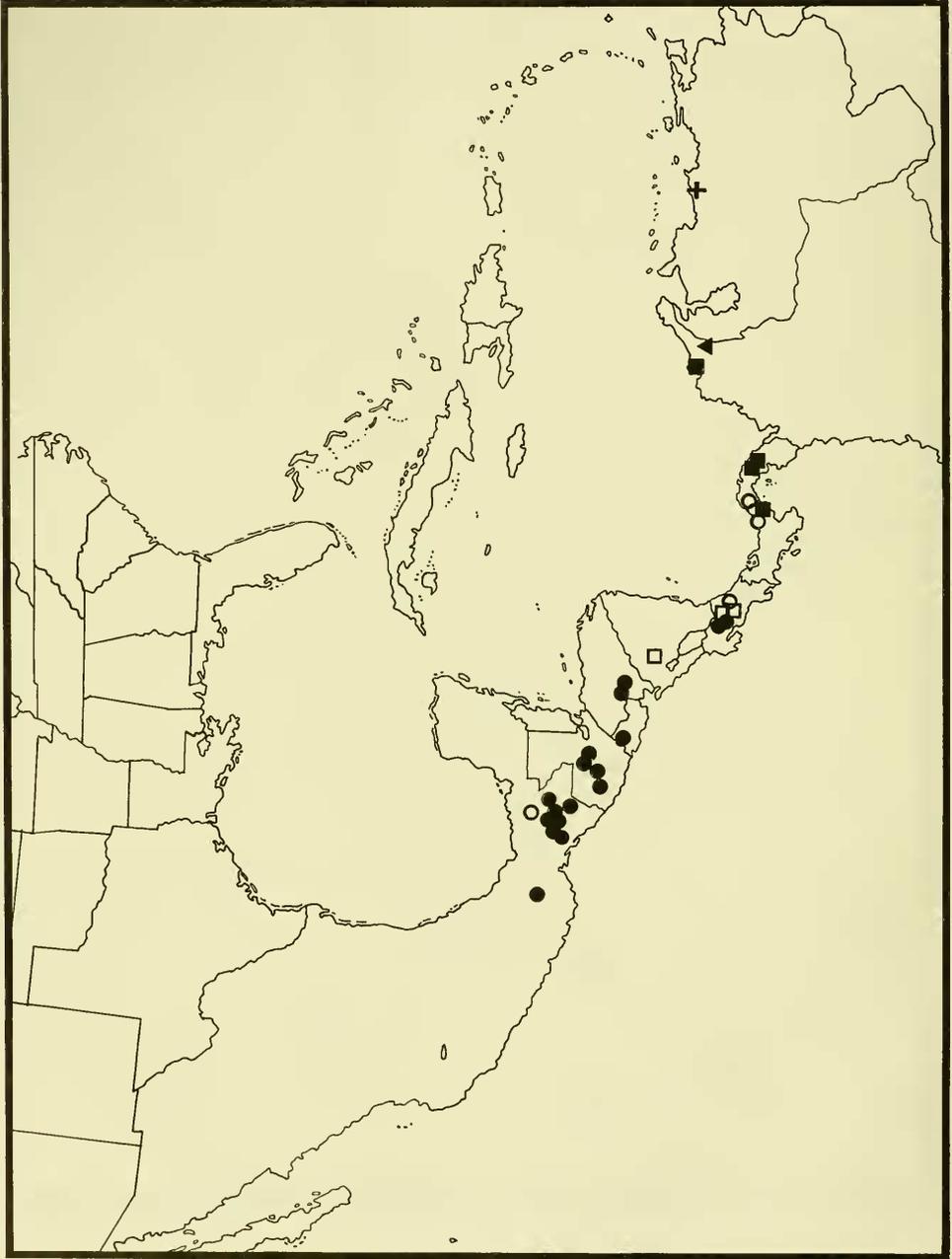


FIGURE 4. Known distribution of *Eudercus longicollis* (Linsley) [open circles]; *E. pulcher* (Bates) [solid circles]; *E. bicinctus* (Linsley) [triangles]; *E. spinicornis* (Chevrolat) [solid squares]; and *E. hoegei* (Bates) [open squares].

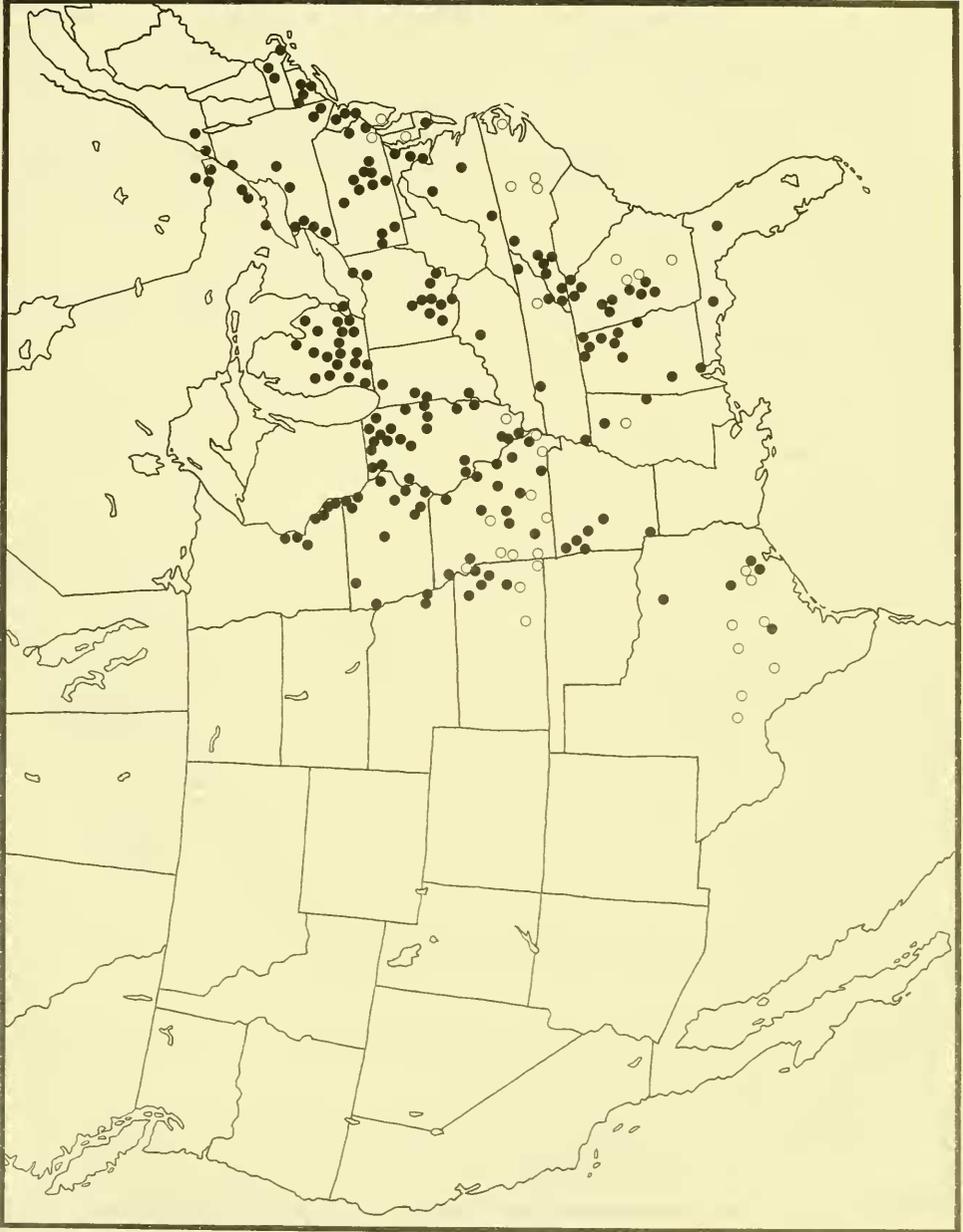


FIGURE 5. Known distribution of *Euderces pini* (Olivier) (open circles), and *E. picipes* (Fabricius) (closed circles).

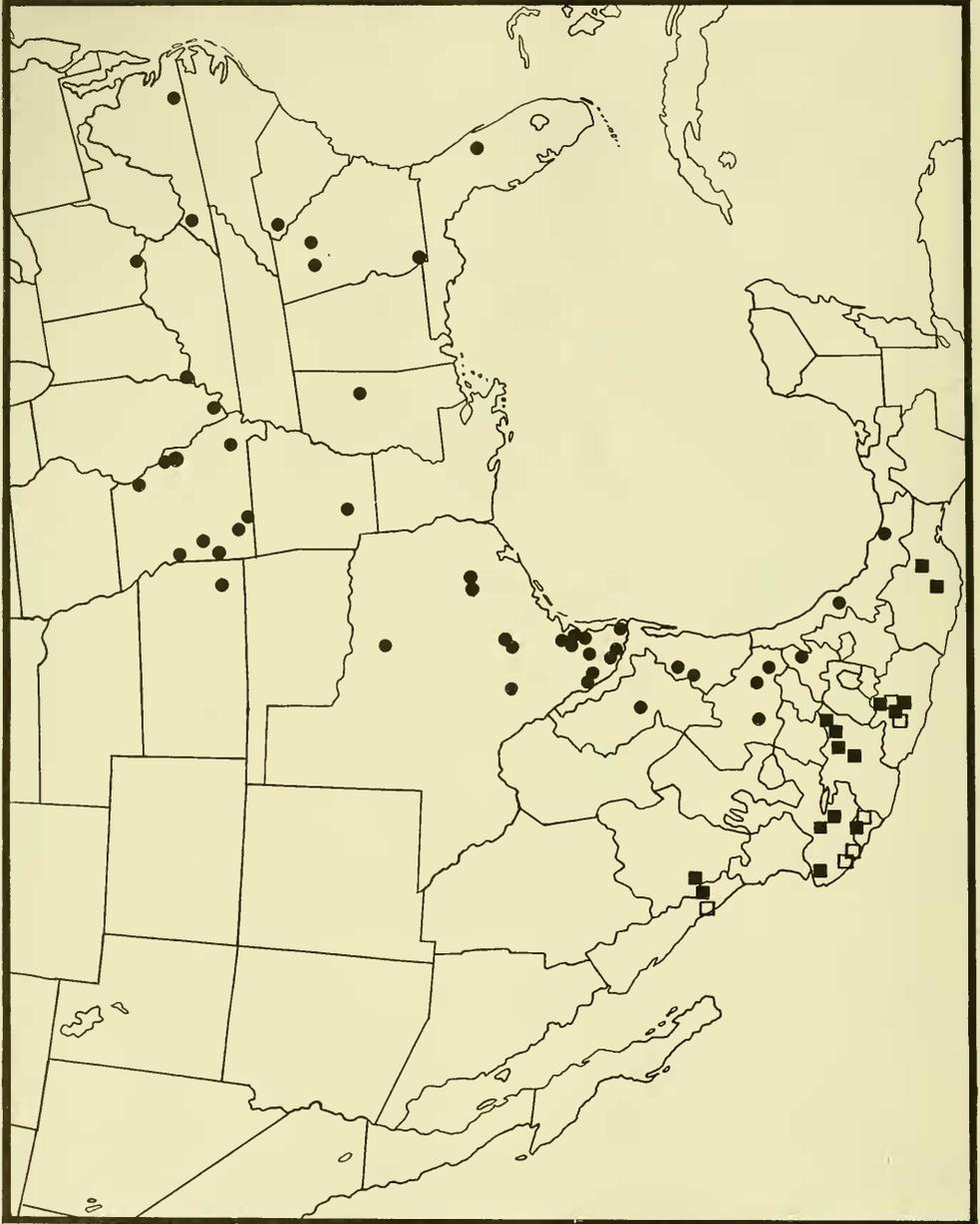


FIGURE 6. Known distribution of *Eudermes reichet* LeConte [circles]; *E. nelsoni* Chemsak [open squares]; and *E. aspericollis* (Chemsak) [closed squares].

KEY TO THE SPECIES OF *EUDERCES* LECONTE

(NOTE. — *E. guerinii* and *E. waltli*, South American species not seen in the course of this study, have not been included in the following key.)

1. Antennae with third segment spined, spiculate, or dentate at apex 15
- Antennae with apex of third segment unarmed, rounded at apex 2
- 2.(1) Elytra with two pairs of eburneous markings (anterior pair sometimes indistinct) 3
- Elytra with single pair of eburneous fasciae 8
- 3.(2) Abdomen with patch of fine, appressed pubescence on each side of first sternite 4
- Abdomen shining, lacking appressed pubescent patches on first sternite 5
- 4.(3) Pronotal disk with long, distinct, fine, longitudinal striae. Elytra with posterior eburneous fasciae transverse. Length 3.5–4 mm. (Fig. 31) Mexico (Chiapas), Guatemala *laevicauda* Bates
- Pronotal disk moderately finely, longitudinally rugose. Elytra with posterior eburneous fasciae strongly oblique. Length 6 mm. (Fig. 37) Mexico (Guerrero) *obliquefasciatus*, new species
- 5.(3) Elytra with eburneous fasciae transverse, subparallel, close to and equidistant from suture. Length 3–5 mm. (Figs. 3, 38) Mexico (Baja California) *parallelus* LeConte
- Elytra with eburneous markings not parallel nor equidistant from suture 6
- 6.(5) Elytra with anterior pair of eburneous markings obliquely linear; basal gibbosities moderately well developed. Pronotum as wide as long. Length 4–5 mm. (Fig. 59) Mexico (Baja California) *westcotti* Hovore
- Elytra with anterior markings ovoid or indistinct; basal gibbosities not developed 7
- 7.(6) Integument bicolored, elytral base and most of suture orange-red. Anterior pair of elytral markings small, evanescent (sometimes absent); humeri transverse. Length 4.5–5.5 mm. (Fig. 44) Mexico (Oaxaca) *propinquus*, new species
- Integument usually piceous (rarely reddish at base of elytra). Anterior pair of elytral eburneous markings distinct, raised, linear, humeri somewhat narrow, sloping. Length 3–5.5 mm. (Fig. 40) Mexico (Guerrero, Oaxaca, Morelos) *perplexus*, new species
- 8.(2) Elytral apices somewhat produced and acuminate; each side at base with small, distinct gibbosity. Length 3.75 mm. (Fig. 7) Guatemala *acutipennis* Bates
- Elytral apices not acuminate; basal gibbosities reduced or absent 9
- 9.(8) Pronotum with discal surface reticulate. Antennae of males about as long as body 10
- Pronotum with discal surface striolate and medially asperate. Antennae of males shorter than body 11
- 10.(9) Integument piceous, usually with indistinct paler areas near elytral basal gibbosities. Pronotum with base moderately densely whitish pubescent. Length 5.5–7.5 mm. (Fig. 13) Western Mexico (Colima, Nayarit, Michoacán, Oaxaca, Guerrero, Durango) *basimaculatus*, new species
- Integument piceous, apical 1/3 of elytra dull yellowish. Pronotum without distinct whitish pubescence at base. Length 5.5–7.5 mm. (Fig. 43) Mexico (Oaxaca) *postipallidus*, new species
- 11.(9) Elytra shining, lacking densely cribrate-punctate area near middle. Integument brown and orange-brown. Length 6 mm. (Fig. 26) Mexico (Oaxaca) *elvirae*, new species
- Elytra partially opaque, with densely cribrate-punctate median area 12
- 12.(11) Abdominal first sternite lacking silky, recumbent pubescence, very sparsely clothed throughout with long, erect, pale hairs 13
- Abdomen with first sternite partially clothed with fine, pale, recumbent, silky pubescence 14

- 13.(12) Legs with femora carinate on both sides near apex. Elytral integument piceous (head, pronotum and basal 1/3 of elytra sometimes red); eburneous fasciae transverse. Length 3.5–5 mm. (Figs. 3, 22) Mexico (Nayarit to Oaxaca), Costa Rica (?) *cribripennis* Bates. Legs with femora lacking carinae. Length 3–5 mm. [Aberrant specimens lacking anterior pair of eburneous fasciae]. Mexico (Baja California) *parallelus* LeConte
- 14.(12) Elytra black at apex, usually orange from base to about apical 1/3 along suture; eburneous fasciae usually somewhat arcuate; elytra nearly three times as long as humeral width. Length 3.5–5.75 mm. (Fig. 14) Mexico (Puebla, Oaxaca) *batesi*, new species. Elytra with large, ill-defined, median, blackish macula on each side, with apex, base, and suture pale orange or yellowish; eburneous fasciae transverse; elytra about 2 2/3 times as long as humeral width. Length 3.75–5 mm. (Fig. 17) Mexico (Puebla, Oaxaca) *biplagiatus*, new species.
- 15.(1) Antennae with apex of third segment dentate 16.
Antennae with apex of third segment distinctly spined or acutely spiculate 21.
- 16.(15) Elytra with coarse, white, appressed pubescence which is denser along suture; sides unimpressed. Abdomen and legs rather densely, coarsely white pubescent. Length 7 mm. (Fig. 30) Mexico (Durango) *howdeni* Chemsak. Elytra without coarse, white sutural pubescence. Abdomen not densely pubescent 17.
- 17.(16) Pronotal disk asperate. Elytra without distinct basal gibbositities. Integument reddish orange, abdomen and apical 1/3 of elytra piceous. Length 3.5–5 mm. (Figs. 6, 48) Central to southern USA (Ohio, Illinois to Florida, Texas) *reichei* LeConte. Pronotal disk reticulate or striate. Elytra with basal gibbositities present 18.
- 18.(17) Pronotal disk reticulate and longitudinally rugose, side margins abruptly angled downward. Integument piceous, appendages and mouthparts orange-brown. Length 4.5 mm. (Fig. 8) Mexico (Guerrero) *andersoni*, new species. Pronotal disk with distinct, longitudinal striae, side margins rounded 19.
- 19.(18) Integument dark orange-brown. Elytra slightly more than 2 1/2 times as long as width across humeri; preapical pubescent fascia lacking. Length 4.5–5 mm. (Figs. 2, 57) Venezuela *venezuelensis*, new species. Integument bicolored reddish and piceous or all piceous. Elytra slightly less than 2 1/2 times as long as width across humeri; preapical pubescent fascia at least indistinctly present. Length 5–9 mm. North America 20.
- 20.(19) Elytra with distinct white pubescent postmedian fascia which is impressed near suture; integument of basal 1/2 usually reddish. Abdominal first sternite with scattered, erect, inconspicuous hairs. (Figs. 5, 41) Eastern USA to Texas *pini* (Olivier). Elytra without a distinct postmedian pubescent fascia or impression, integument usually piceous throughout. Abdominal first sternite densely white pubescent. (Figs. 1, 5) Eastern North America to Oklahoma and Texas *picipes* (Fabricius).
- 21.(15) Elytra with two pairs of eburneous markings 22.
Elytra with single pair of eburneous fasciae 26.
- 22.(21) Antennal third segment longitudinally sulcate. Elytra with basal gibbositities low, not strongly produced 23.
Antennal third segment not sulcate. Elytra with basal gibbositities strongly produced. Integument shining, black. Length 6–9 mm. (Fig. 32) Panama, Costa Rica *linsleyi*, new species.
- 23.(22) Elytral fasciae unequal, anterior pair much shorter 24.
Elytral fasciae equal, anterior and posterior pairs long, subparallel 25.
- 24.(23) Antennae with spine of third segment short, not as long as second segment. Pronotal sides rounded. Elytral anterior markings linear or sinuate. (Fig. 36) Mexico (Yucatán, Quintana Roo), Belize *noguerai*, new species.

- Antennae with spine of third segment longer than second segment. Pronotum elongate, subcylindrical. Elytral anterior markings small, oval. (Figs. 4, 33) Western Mexico (Sinaloa to Guerrero) *longicollis* (Linsley).
- 25.(23) Elytra with eburneous fasciae strongly oblique, linear, widely separated. Antennae of males exceeding elytral apices by about three segments. Length 8.5–14 mm. (Figs. 4, 46, 12c) Western Mexico (Sonora to Oaxaca), Nicaragua *pulcher* (Bates).
Elytral markings more or less transverse, separated by less than width of metafemur.
Antennae of males reaching elytral apices. Length 4.5–7.5 mm. (Figs. 4, 33) Arizona, western Mexico (Sonora, Sinaloa, Baja California) *bicinctus* (Linsley).
- 26.(21) Antennae with apical spine of third segment sharply spiculate or short to moderately long, but always less than 2/3 as long as entire fourth segment 27.
Antennae with apical spine of third segment long, 2/3 or more as long as entire fourth segment, often curved and blunt at apex 40.
- 27.(26) Legs with meso- and metafemora slender, incrassate. Integument dark metallic blue. Elytral apices strongly, obliquely emarginate, outer angle stoutly dentate. Length 10.5–11 mm. (Fig. 11, 12a) Guatemala *azureus*, new species.
Legs with femora clavate. Integument not metallic. Elytral apices rounded, truncate, or slightly emarginate 28.
- 28.(27) Metafemora gradually clavate, underside nearly straight, surface moderately coarsely scabrous. Length 4–6.5 mm. (Fig. 25, 12e) Mexico (Oaxaca, Chiapas) to Honduras.
. *disparicrus*, new species.
Metafemora moderately abruptly clavate, surface smooth, shining 29.
- 29.(28) Elytral disk moderately sparsely punctate, lacking median cribrate-punctate area. Integument piceous, mouthparts, antennae, parts of legs, and tarsi orange-brown. Length 6–8 mm. (Fig. 55) Mexico (Chiapas), Guatemala *turnbowi*, new species.
Elytral disk with portion of the median area densely cribrate-punctate 30.
- 30.(29) Pronotal disk with long, longitudinal striations. Antennae of males short, reaching to about middle of elytra. Elytra with basal gibbosities close to suture. Length 4.5–6.5 mm. (Fig. 15) Southern Mexico (Chiapas) to Honduras *bellus*, new species.
Pronotal disk asperate, longitudinally rugose, or with shorter, finer striae. Elytral gibbosities, if present, located near middle of base on each side 31.
- 31.(30) Elytra without basal gibbosities 32.
Elytra with low to prominent basal gibbosities 33.
- 32.(31) Pronotum moderately sparsely asperate, lacking recumbent pubescence. Integument reddish orange, abdomen and apical 1/2 of elytra black (southern Mexico populations often all black) (Figs. 6, 48). Eastern U. S. (Ohio to Florida and Texas) to Mexico (Nuevo León, Tamaulipas, San Luis Potosí, Veracruz) *reichei* LeConte.
Pronotum moderately densely asperate, clothed at base and apex with fine, recumbent pubescence. Integument reddish, legs, abdomen, and apical 1/2 of elytra brown. (Fig. 50) Guatemala *rubellus* (Bates).
- 33.(31) Integument of pronotum reddish; elytra reddish, apical 1/2 often infuscated. Elytral gibbosities low, moderately small. Length 5–6 mm. (Figs. 6, 35) Western Mexico (Sinaloa, Jalisco, Guerrero, Chiapas) *nelsoni* Chemsak.
Integument of pronotum dark brown, piceous or black. Elytral gibbosities broad or strongly produced 34.
- 34.(33) Elytra with basal gibbosities strongly produced. Antennae with spine of third segment slightly more than 1/2 as long as entire fourth segment 35.
Elytra with basal gibbosities broad, not strongly produced. Antennae with spine of third segment at most 1/2 as long as entire fourth segment 36.
- 35.(34) Elytra with basal 1/3 of disk nearly glabrous; eburneous fasciae located slightly before basal third. Abdomen lacking oblique, lateral pubescent markings. Length 5.5–7 mm. (Fig. 58) Mexico (Chiapas), Guatemala *wappesi*, new species.

- Elytral disk with basal 1/3 moderately pubescent near gibbosities; eburneous fasciae located slightly behind basal 1/3. Abdominal first segment with oblique, lateral pubescent markings. Length 4.5–5.5 mm. (Fig. 51) Guatemala *sculpticollis* (Bates).
- 36.(34) Pronotal disk moderately coarsely, longitudinally rugose-striate. Elytral apices somewhat obliquely truncate. Length 8.5–10.5 mm. (Fig. 45) Guatemala *proximus*, new species.
Pronotal disk moderately densely asperate or finely striate. Elytral apices transversely subtruncate. Length 4.5–7.5 mm 37.
- 37.(36) Abdomen with each side of first sternite bearing oblique, pale pubescent marking. Length 4.5–7.5 mm. (Figs. 6, 28) Western Mexico (Sinaloa, Durango, Jalisco, Guerrero, Michoacán, Oaxaca), Guatemala *aspericollis* (Chemsak).
Abdomen with first sternite lacking pubescent markings 38.
- 38.(37) Elytra with transverse, glabrous fascia before apical pubescent patch distinct, narrow. Males with antennae longer than body. Length 5–8.25 mm. (Fig. 19) Mexico (Hidalgo, San Luis Potosí) *brailovskyi*, new species.
Elytra with apical pubescent patch preceded by wider or ill-defined glabrous fascia. Males with antennae not exceeding elytral apices 39.
- 39.(38) Elytral integument deep yellowish on apical 1/2. Pronotal disk with surface moderately finely, longitudinally reticulate and asperate. (Fig. 10) Mexico (Oaxaca, Guerrero) *auricaudus*, new species.
Elytral integument dark to apices. Pronotal disk with surface finely, densely asperate and striate. (Fig. 23) Bolivia *dilutus* Martins.
- 40.(26) Pronotum bicolored, orange at base, broadly black on disk. Elytra bicolored 41.
Pronotal integument unicolorous. Elytra variably colored 42.
- 41.(40) Elytra less than 2 1/2 times as long as width across humeri. Antennae with apical spine of third segment longer than fourth segment. Appendages orange-testaceous (Figs. 4, 52). Mexico (Tamaulipas, San Luis Potosí, Puebla, Veracruz), Guatemala, Honduras *spiniornis* (Chevrolat).
Elytra nearly three times as long as width across humeri. Antennae with spine of third segment about 3/4 length of fourth segment (Fig. 28). Guatemala and Honduras *guatemalenus*, new species.
- 42.(40) Integument yellow-brown, pronotum pale orange-brown. Elytra lacking cribrate-punctate areas. Length 5 mm. (Fig. 53) Guatemala *succinus*, new species.
Integument all or partly black, dark brown, or reddish. Elytra with median cribrate-punctate areas 43.
- 43.(42) Meso- and metatibiae strongly compressed. Elytra with opaque, cribrate-punctate area extensive, lacking impunctate area anterior to preapical pubescence 44.
Meso- and metatibiae not strongly compressed. Elytra with distinct impunctate area between cribrate-punctate area and preapical pubescence 45.
- 44.(43) Pronotum slightly longer than wide, sides broadly rounded. Form moderately robust, elytra slightly more than twice as long as width across humeri. Length 8.25–10 mm. (Fig. 56) Honduras, Guatemala *velutinus* (Fisher).
Pronotum about 1 1/2 times as long as wide, sides slightly rounded. Form less robust, elytra about 2 1/3 times as long as width across humeri. Length 7.25–8 mm. (Figs. 54, 12d) Mexico (Veracruz, Chiapas), Guatemala *tibialis*, new species.
- 45.(43) Antennae with third segment about 1 1/2 times as long as fourth segment 46.
Antennae with third segment distinctly more than 1 1/2 times as long as fourth 47.
- 46.(45) Elytra with basal gibbosities well developed. Integument variable, pronotum and basal 1/2 of elytra usually reddish, piceous behind eburneous fasciae; sometimes all piceous, or with prothorax piceous. Antennae slightly thickened distally. (Figs. 2, 24) Nicaragua, Costa Rica *dimidiatipennis* (Melzer).

- Elytra with basal gibbosities low; small impunctate spot present on suture between basal gibbosities and eburneous fasciae. Integument black. Antennae slender throughout. (Fig. 21) Costa Rica, Panama *cribellatus* (Bates).
- 47.(45) Integument reddish, apical portion of elytra infuscated 48.
 Integument black, brown, or bicolored (black with reddish or orange areas) 49.
- 48.(47) Antennae of males slightly exceeding elytral apices. Pronotal discal surface longitudinally striate. Elytral basal gibbosities moderately produced. (Figs. 3, 60) Mexico (Yucatán, Quintana Roo) *yucatecus* (Bates).
 Antennae of males reaching about middle of elytra. Pronotal surface moderately finely rugulose and asperate. Elytral basal gibbosities strongly produced. (Fig. 49) Mexico (Veracruz, Chiapas), Guatemala, Belize *reticulatus* (Bates).
- 49.(47) Elytral integument bicolored: black with reddish or orange areas 50.
 Elytral integument dark brown or black 51.
- 50.(49) Elytral integument black, with orange areas at sides of disk on basal 1/2. (Figs. 2, 20) Mexico to Panama *cleriformis* (Bates).
 Elytral integument with dark reddish orange area at middle surrounding eburneous fasciae, remainder of integument black. (Figs. 4, 29) Mexico (Veracruz, Chiapas). *hoegei* (Bates).
- 51.(49) Pronotum shining; disk with deep, long, longitudinal striations for most of length. Antennae with fourth segment short, about 1/3 as long as third, 1/2 as long as fifth, and shorter than spine of third segment. Appendages pale testaceous. Length 6–7 mm. (Fig. 27) Mexico (Veracruz) *grossistriatus*, new species.
 Pronotum with striations, if present, not deep or long. Antennal fourth segment more than 1/2 as long as 5th segment. Appendages orange-brown to piceous or black 52.
- 52.(51) Larger species, length 7.5–12 mm 53.
 Smaller species, length 3.5–6.5 mm 54.
- 53.(52) Pronotum not striate nor asperate. Elytral apices broadly subtruncate. Length 12 mm. (Fig. 34) Guatemala *magnus* (Bates).
 Pronotum with discal surface striate. Elytral apices truncate. Length 7.5–10 mm. (Figs. 2, 18, 12b) Mexico (Chiapas) to Costa Rica *boucardi* (Chevrolat).
- 54.(52) Elytra with gibbosities moderately produced, apices narrowly subtruncate, outer angles dentate 55.
 Elytra with basal gibbosities feeble, apices broadly rounded. Integument brown to black. Length 3.5–6 mm. (Fig. 47) Mexico (Chiapas) to Costa Rica *pusillus*, new species.
- 55.(54) Antennal third segment with spine about 2/3 as long as fourth segment. Pronotum slightly less than 1 1/2 times as long as wide, sides moderately rounded. Elytral glabrous fascia across apical 1/3 wide, shining. (Figs. 2, 39) Colombia. *paraposticus*, new species.
 Antennal third segment with spine at least as long as fourth segment. Pronotum 1 1/4 times as long as wide, sides rounded. Elytral glabrous fascia across apical 1/3 narrow. (Figs. 2, 42) Panama, Colombia *posticus* (Pascoe).

VARIATION. — Character states which in other groups could be considered as generic, such as the absence or length of antennal spines, the form and surface sculpture of the pronotum, the absence or size of basal elytral gibbosities, and the shape of the femora, are all highly variable within the genus *Euderces*.

In the case of the basal gibbosities which are often present to one degree or another, the following observations may be made: Eleven species have these gibbosities strongly developed

and nearly vertical, namely *E. cleriformis*, *E. dimidiatipennis*, *E. guatemalensis*, *E. hoegei*, *E. linsleyi*, *E. magnus*, *E. pini*, *E. reticulatus*, *E. sculpticollis*, *E. spinicornis*, and *E. wappesi*. Thirteen species lack distinct basal gibbosities: *E. batesi*, *E. biplagiatus*, *E. cribripennis*, *E. laevicauda*, *E. longicollis*, *E. obliquefasciatus*, *E. parallelus*, *E. perplexus*, *E. propinquus*, *E. pulcher*, *E. pusillus*, *E. reichei*, and *E. rubellus*. The remaining species have the gibbosities distinctly present, but less well-developed, often

only as moderately broad or arcuate tumidities. A similar set of four loosely formed groups appears when the antennae are examined. A small group of four apparently related species have the third and fourth segments longitudinally grooved, with a sharp spine shorter than the fourth segment at the apex of the third segment. These are *E. bicinctus*, *E. longicollis*, *E. noguerai*, and *E. pulcher*. The remaining species do not have grooved antennal segments. Seventeen of these species bear no spine at the apex of the third segment, or at most bear a small apical tooth. These are *E. andersoni*, *E. basimaculatus*, *E. batesi*, *E. biplagiatus*, *E. cribripennis*, *E. elvirae*, *E. laevicauda*, *E. obliquefasciatus*, *E. parallelus*, *E. perplexus*, *E. picipes*, *E. pini*, *E. postipallidus*, *E. propinquus*, *E. reichei*, *E. venezuelensis*, and *E. westcotti*. An equal number of species have this segment bearing a long, sometimes blunt, apical spine, 2/3 or more as long as the fourth segment: *E. boucardi*, *E. cleriformis*, *E. cribellatus*, *E. dimidiatipennis*, *E. grossistriatus*, *E. guatemalensis*, *E. hoegei*, *E. linsleyi*, *E. magnus*, *E. paraposticus*, *E. posticus*, *E. pusillus*, *E. reticulatus*, *E. spinicornis*, *E. succinus*, *E. tibialis*, and *E. yucatecus*. The remaining species have the apex of the third segment distinctly more than dentate, but with the spine less than 2/3 as long as the fourth segment. Although the hind legs of most *Euderces* have smooth, fairly abruptly clavate femora and somewhat flattened, longitudinally carinate tibiae (Fig. 12b), a few species show considerable structural variation from this norm. The most distinct of these occur in *E. disparicus*, with gradually clavate, scabrous femora (Fig. 12e); *E. azureus*, with gradually incrassate femora and non-carinate tibiae (Fig. 12a); and *E. velutinus* and *E. tibialis*, with flattened meso- and metatibiae which are about as broad as the femoral club (Fig. 12d). In addition, the hind femora of the following species are briefly carinate on each lateral face just behind the apex: *E. batesi*, *E. biplagiatus*, *E. boucardi*, *E. cribripennis*, *E. disparicus*, *E. noguerai*, *E. proximus*, *E. pusillus*, *E. reichei*, *E. succinus*, *E. tibialis*, *E. velutinus*, and *E. wappesi*.

***Euderces acutipennis* Bates** (Fig. 7)

Euderces acutipennis Bates, 1885:305; Aurivillius, 1912:419; Chemsak, 1969:313; Chemsak & Linsley, 1975:87. (TYPE LOCALITY: Panajachel, Sololá, Guatemala.)

REDESCRIPTION. — *Female*: Length 3.75 mm. Integument piceous, tarsi slightly paler; elytra with a single pair of eburneous fasciae. Head somewhat retracted into pronotum; eyes moderately prominent, lobes divided, upper lobe not visible; antennae reaching to about basal 1/3 of elytra, third segment subequal to scape and to fifth segment, about 1 1/2 times as long as fourth, segments unarmed and slightly swollen apically. Pronotum slightly longer than wide, sides broadly rounded, basal 1/6 impressed and narrowed, apex somewhat narrowed; discal surface moderately shining, finely, longitudinally striate, with pale pubescence at base, entire surface sparsely clothed with long, erect, pale hairs; prosternum without coarse punctures or pubescence; lateral and hind margins of mesepimera and metasternum densely pale pubescent. Scutellum small, apex subtruncate, surface indistinctly pale pubescent. Elytra about 2 1/2 times as long as width across humeri, sides slightly wider behind middle; apices strongly acuminate at suture; each side near base with a small, moderately distinct gibbosity; a narrow, transverse, raised, eburneous fascia present from margin to middle of disk on each side at about basal 1/3; surface of basal 1/5 shining, indistinctly punctate, median 1/4 densely cribrate-punctate on both sides of eburneous markings, remainder of elytra impunctate, alutaceous, with an indistinct, arcuate, transverse fascia of very short, fine, appressed, pale pubescence across apical 2/5; entire disk very sparsely clothed with erect hairs. Abdomen shining; terminal sternite as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, partially clothed with appressed pale hairs.

Male: Unknown.

REMARKS. — As noted by Chemsak (1969), this species is somewhat anomalous in the genus due to the attenuated form of the elytral apices and the apparently retractile head. The holotype [BMNH] was the only specimen seen in this study.

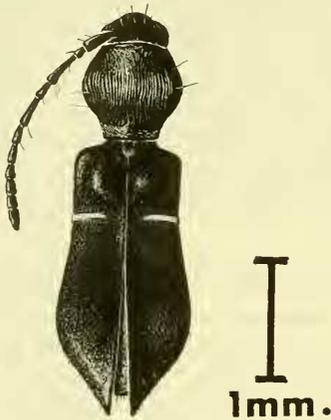


FIGURE 7. *Euderces acutipennis* Bates, Holotype female. Scale = 1 mm.

***Euderces andersoni*, new species**
(Fig. 8)

TYPE. — Holotype female [CNMN] from MEXICO, Guerrero, 7.2 km NW El Ocotito, 853 m, July 7, 1987 (R. Anderson).

DESCRIPTION. — *Female*: Length 4.5 mm. Integument piceous, antennae and mouthparts orange-brown, legs dark reddish brown, elytra with a single pair of eburneous fasciae. Head with eyes divided, upper lobes very small; antennae reaching to about apical 1/3 of elytra, third segment nearly twice as long as scape, twice as long as fourth segment, dentate at apex, fourth segment minutely dentate at apex. Pronotum about 1 1/4 times as long as broad, sides rounded, somewhat impressed at base, less strongly narrowed at apex; disk with side margins abrupt; surface longitudinally reticulate-striolate, sparsely clothed at base with short, appressed pale pubescence; entire surface with sparse, long, erect, pale hairs; prosternum nearly smooth, with sparse, fine, pale pubescence near base; lateral margins of mesepimera and sides of hind margin of metasternum densely whitish pubescent. Scutellum small, rounded, surface very finely pubescent. Elytra slightly more than twice as long as width across humeri, sides feebly im-

pressed before middle, slightly wider before apex; apices broadly rounded; each side near base with a fairly distinct, narrow, somewhat elevated gibbosity, apices of gibbosities asperate; a moderately wide, transverse, raised, eburneous fascia present on each side at about basal 1/3 extending from lateral margin nearly to suture; discal surface with basal 1/4 moderately coarsely punctate, somewhat shining, median 1/4 densely cribrate-punctate before and behind eburneous fasciae, apical 1/2 nearly impunctate, alutaceous, with a wide, transverse fascia of fine, appressed, pale pubescence across apical 1/4; entire disk clothed with long, erect, pale hairs. Abdomen shining, sparsely pubescent; last sternite slightly longer than fourth, apex rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, sometimes with longitudinal bands of short, pale pubescence.

Male: Unknown.

REMARKS. — This species somewhat resembles a melanic form of *E. nelsoni*. In addition to

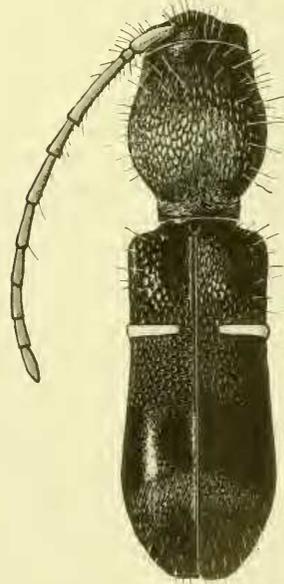


FIGURE 8. *Euderces andersoni*, new species, Holotype female.

integumental color, however, it differs from that species in having dentate antennal segments and a somewhat more strongly gibbose elytral base. It is a pleasure to name this species for Robert S. Anderson of the Canadian Museum of Nature in Ottawa.

***Euderces aspericollis* (Chemsak)**
(Figs. 6, 9)

Eplophorus aspericollis Chemsak, 1969:311. (TYPE LOCALITY: Tuxpan, Michoacán, Mexico.)
Euderces aspericollis; Chemsak & Linsley, 1975:88.

REDESCRIPTION. — *Male*: Length 5–8 mm. Integument piceous to dark reddish brown, sometimes with pronotum and basal 1/2 of elytra reddish brown, elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided, upper lobes small; antennae reaching to about apical 1/4 of elytra, third segment 2 1/2 times as long as fourth, armed at apex with a sharp spine which is about 1/2 as long as fourth segment, apex of fourth segment with a small spine. Pronotum about 1 2/5 times as long as broad, sides somewhat rounded, somewhat impressed toward base; discal surface longitudinally reticulate and moderately densely asperate, finely, moderately sparsely clothed with short, appressed, pale pubescence near base and apex; entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately dense, subdepressed, whitish pubescence; lateral margins of mesepimera and hind margins of meso- and metasternum clothed with dense, whitish pubescence. Scutellum with apex rounded, moderately sparsely clothed with appressed, pale pubescence. Elytra slightly less than 2 1/2 times as long as width across humeri, sides slightly impressed before middle; apices truncate, hind angles not produced; each side near base moderately strongly, narrowly gibbose; a narrow, transverse, raised, eburneous fascia present on each side at about basal 2/5 from lateral margin to past middle of disk; discal surface with basal 1/3 coarsely, densely punctate, with appressed, pale pubescence surrounding basal gibbositities, extreme base and gibbositities less densely punctate with tops of gibbositities asperate-punctate, median 1/3 opaque, densely cribrate-punctate, apical 1/3 alutaceous, im-

punctate, with a moderately distinct, transverse fascia of appressed, pale pubescence across apical 1/4, moderately pubescent behind fascia; entire disk clothed with long, erect, pale hairs. Abdomen with first sternite indistinctly, obliquely marked at sides with whitish pubescence; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 4.5–8 mm. Antennae shorter, reaching to about middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — Although most specimens are piceous to dark brown throughout, occasional

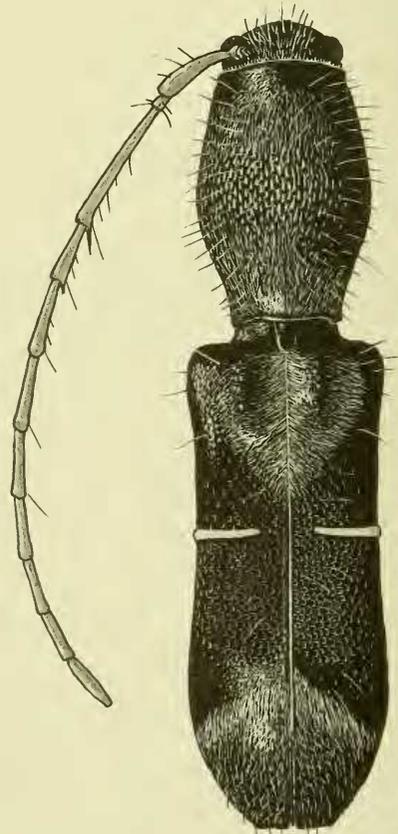


FIGURE 9. *Euderces aspericollis* (Chemsak), male.

specimens have been seen with the head, pronotum, and basal half of the elytra reddish brown, and a very few specimens all reddish brown. Flight period appears to be June to September. Although not otherwise known from outside of southwestern Mexico (see Fig. 6), a single female specimen has been seen bearing the label: "Tegucigalpa, Honduras, Aug. 11, 1919 (F. J. Dyer)," which is tentatively assigned to *aspericollis* being structurally very similar, but of a lighter reddish brown color.

***Euderces auricaudus*, new species**
(Fig. 10)

TYPES. — Holotype male [EMEC], allotype and 127 paratypes (78 males, 49 females) from MEXICO, OAXACA, 7–8 mi. E Mitla, 6200 ft., beaten from *Quercus* sp., July 3–9, 1994 (Giesbert). 74 additional paratypes from MEXICO as follows: OAXACA: 1 female, 20.5 mi. NW Oaxaca, 5500 ft., "dry oak savannah," August 6, 1983 (R. Anderson, W. Maddison); 1 female, 11.1 km NW Diaz Ordaz, 2400 m., July 4, 1989 (Barchet); 1 female, 14 km NW Diaz Ordaz, 2600 m., June 15, 1979 (H. & A. Howden); 1 male, 1 female, N of Hwy #190, 7 km N Diaz Ordaz, July 17, 1992 (G. H. Nelson, D. S. Verity); 1 female, Hwy #190, 37 km NW Jct. with Hwy 131, July 18, 1992 (Nelson & Verity); 9 males, 5 females, Hwy #175, 14.1 km N int. Hwy. #191, 2100 m., "dry pine/oak forest," July 2, 1989 (E. Barchet); 1 male, Zempoaltepetl, 2 km S Diaz Ordaz, 2075 m., July 4, 1989 (Barchet); 1 male, 8 mi. N Telixlahuaca, 7100 ft., August 31, 1982 (O'Brien); 1 male, 1 female, 6 km E Miahuatlan, Tamazulapan, 1800 m., July 5, 1989 (Barchet); 1 female, 3 km NW Sola de Vega, 1400 m., July 7, 1989 (Barchet); 1 male, 12 km S Benito Juarez, 2100 m., July 1, 1989 (Barchet); 1 male, 6.7 km N El Punto, 2100 m., June 29, 1989 (Barchet); 13 males, 2 females, 3 mi. N El Punto, 7300 ft., July 4–7, 1994 (E. Giesbert); 1 male, 10.8 km N Jct. #175/#195, 1859 m., "oak-Acacia woodland," July 19, 1987 (R. Anderson); 1 male, 19.8 km N Macuitlchochitl, 1900 m., July 1, 1989 (Barchet); 1 male, 3 females, 6–9 mi. NE Mitla, July 20, 1985 (Jones, Schaffner); 4 males, 5 females, 13–14 km E Mitla, 2100 m., August 5–11, 1986 (Howdens); 1 female, Hwy. #175, 4 km W Capulapan, 2000 m., June 13, 1979 (Howdens); 1 male, 19 mi. NW Totolapan, July 28, 1963; 1 male, 1 female, Hwy. #131, 70 km S Oaxaca, Rio de la Y, 2150 m., June 17, 1979 (Howdens); 1 male, 3 mi. SE Matatlan (Microondas road), 6650 ft., July 17, 1987 (Kovarik, Schaffner); 1 male, 8 mi. E Nochixtlan, July 5, 1975 (Triplehorn); 1 male, 1 female, 12–13 km S Miahuatlan, August 10, 1986 (Howdens); 3 females, 2 males, El Cerezal, 36 km NE Oaxaca, 2300 m., June 12, 1979

(Howdens); 1 male, 1 female, 5 km N Oaxaca, 1700 m., June 14, 1979 (Howdens); GUERRERO: 1 male, 6.2 mi. SW Xochipala, July 13, 1985 (Jones, Schaffner); 1 female, 23.6 km W Hwy #95, Xochipala rd., July 24, 1992 (Nelson, Verity). Paratypes are deposited with CNMN, EMEC, TAMU, MAIC, HAHC, JEB, EFGC, JEW.

DESCRIPTION. — *Male*: Length 5–8 mm. Integument piceous, apical 1/2 of elytra deep yellowish, elytra with a single pair of eburneous fasciae (elytra rarely all piceous). Head with eyes moderately small, lobes divided, upper lobes small; antennae nearly reaching apices of elytra, third segment 2 1/2 times as long as fourth, armed at apex with a sharp spine which is about 1/2 as long as fourth segment, apex of fourth segment with a small spine, apex of fifth segment sometimes dentate. Pronotum about 1 1/3 times as

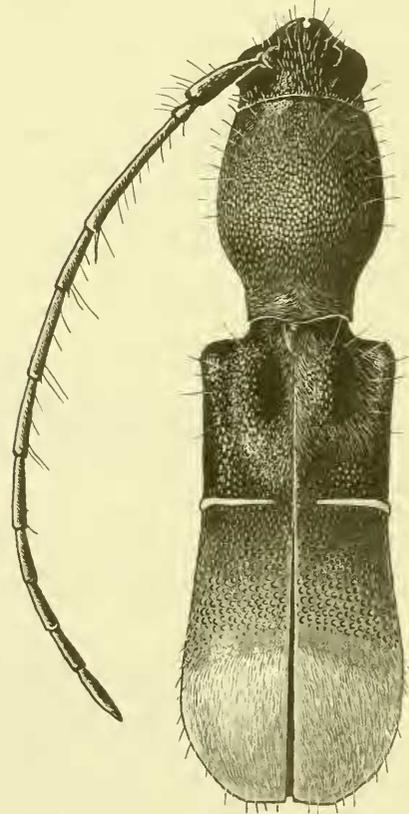


FIGURE 10. *Euderces auricaudus*, new species, male.

long as broad, sides somewhat rounded, somewhat impressed toward base; discal surface longitudinally reticulate and moderately densely asperate, finely, moderately sparsely clothed with short, appressed, golden pubescence near base and apex; entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior $3/5$ bearing coarse punctures and moderately dense, subdepressed, whitish pubescence; lateral margins of mesepimera and hind margins of meso- and metasternum clothed with dense, whitish pubescence. Scutellum with apex rounded, moderately densely clothed with appressed, golden pubescence. Elytra slightly less than $2\frac{1}{2}$ times as long as width across humeri, sides slightly impressed before middle; apices rounded to subtruncate, hind angles not produced; each side near base moderately strongly, narrowly gibbose; a narrow, transverse, raised, eburneous fascia present on each side at about basal $2/5$ from lateral margin to past middle of disk; discal surface with basal $1/3$ coarsely, densely punctate, with appressed, pale pubescence surrounding basal gibbositities, tops of gibbositities asperate-punctate, median $1/3$ opaque, densely cribrate-punctate and finely golden pubescent, apical $1/3$ alutaceous, impunctate, with a moderately distinct, transverse fascia of appressed, pale pubescence across apical $1/4$, moderately densely golden pubescent behind fascia; entire disk clothed with long, erect, pale hairs. Abdomen moderately sparsely golden pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 4.5–8 mm. Antennae shorter, reaching to about apical $1/3$ of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species is very close to *E. aspericollis*, differing from the latter only in having the dark yellowish integument and golden pubescence of the apical $1/2$ of the elytra, the slightly more robust pronotum, and the lack of an oblique pubescent marking on each side of the first abdominal sternite. A large series of specimens was beaten from dry foliage and twigs of recently fire-killed *Quercus* sp. The species

name refers to the elytral color pattern: *aurum* = gold (L.) + *cauda* = tail (L.).

***Euderces azureus*, new species**
(Figs. 11, 12a)

TYPES. — Holotype male [EMEC] and allotype from GUATEMALA, Baja Verapaz, 6–9 km E Purulhá, 5000 ft., April 15–24, 1990 (E. Giesbert). One additional male paratype from GUATEMALA, El Progreso, Sierra de las Minas, 19 km N Estancia de la Virgen, 6000 ft., April 18–20, 1990 (Giesbert) [EFGC].

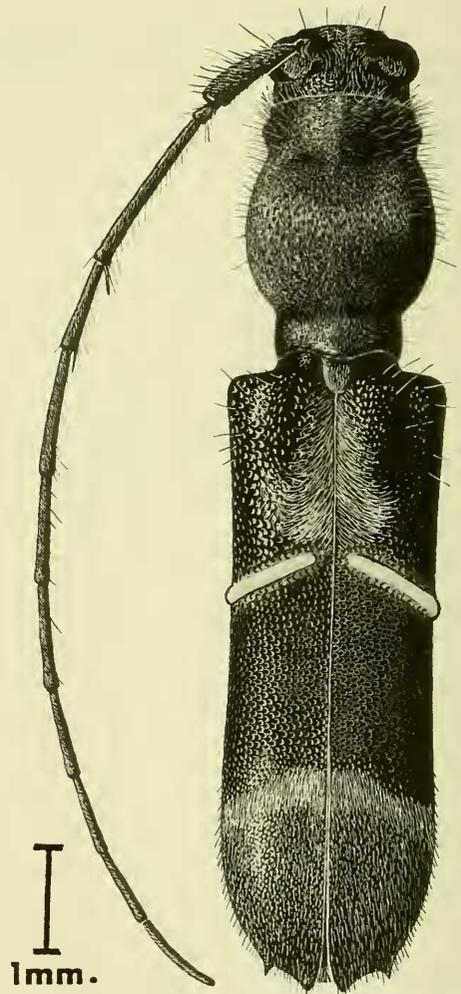


FIGURE 11. *Euderces azureus*, new species, male.

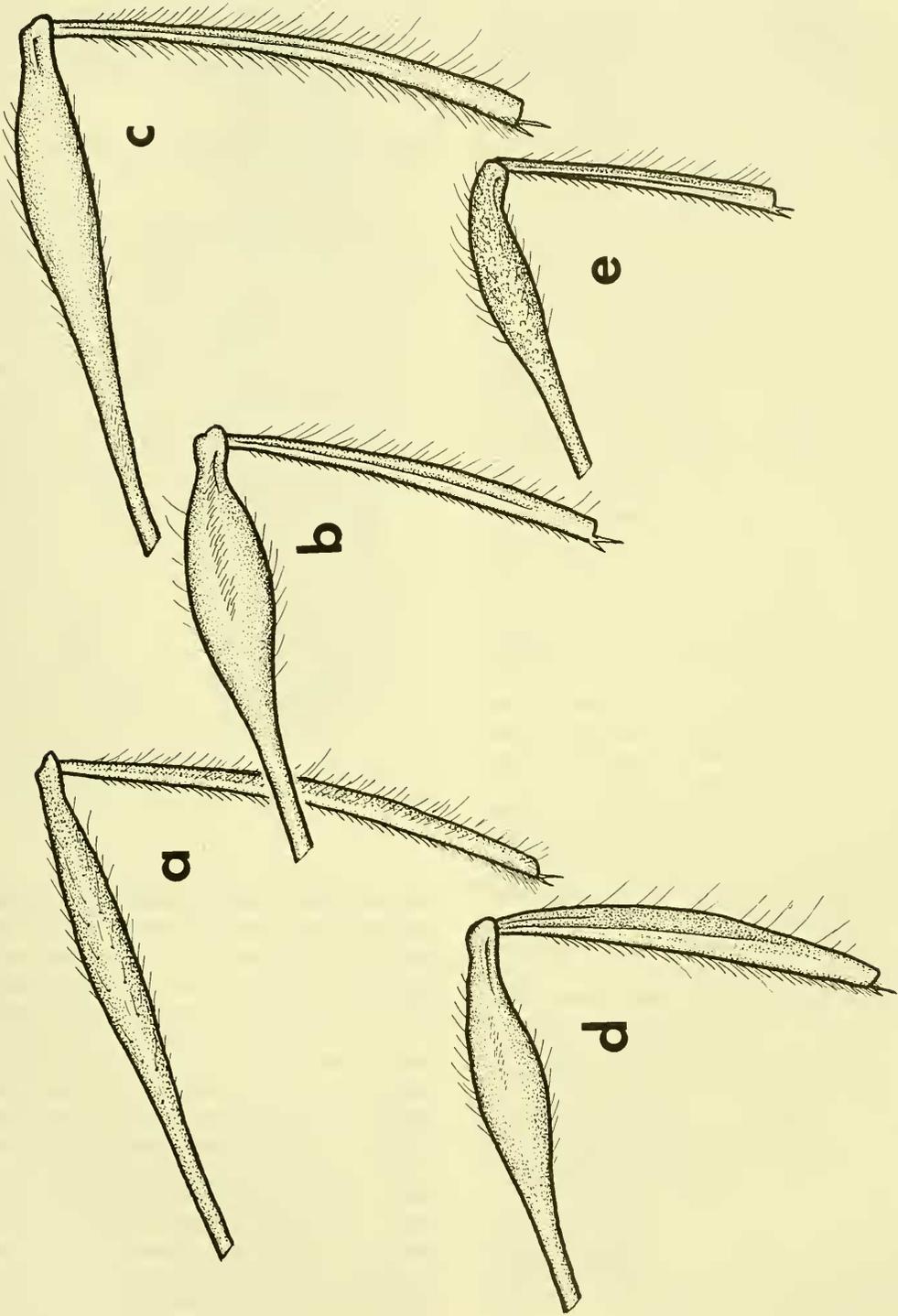


FIGURE 12. Hind femora and tibiae of (a) *Euderces azureus*; (b) *E. boucardi*; (c) *E. pulcher*; (d) *E. tibialis*; and (e) *E. disparicrus*. (Not to scale.)

DESCRIPTION. — *Male*: Length 10.5–11 mm, form moderately slender. Integument piceous with distinct dark metallic blue reflections; elytra with a single pair of eburneous fasciae. Head with eyes moderately prominent, lobes divided; antennae reaching to about elytral apices, third segment nearly twice as long as fourth, armed at apex with sharp spine which is about as long as second segment, apex of fourth segment with a somewhat shorter spine. Pronotum about 1 1/2 times as long as broad, sides sinuate, rounded at middle, basal 1/5 and apex strongly, transversely impressed; disk with middle strongly convex, surface finely, densely asperate at middle; sparsely clothed with short, pale, subdepressed pubescence laterally and at base and apex; entire surface moderately sparsely clothed with long, erect, pale hairs which are denser near apex; prosternum with posterior 1/2 bearing coarse punctures and subdepressed, pale pubescence; lateral and hind margins of mesepimera and metasternum clothed with dense, whitish pubescence. Scutellum rounded at apex, moderately sparsely clothed with short, pale pubescence. Elytra nearly three times as long as width across humeri, sides feebly impressed before middle; apices strongly oblique, subemarginate, outer angle stoutly dentate; each side near base moderately strongly gibbose; a somewhat broad, oblique, strongly raised, eburneous fascia present on each side at about basal 1/3 from lateral margin nearly to suture; discal surface with basal 1/3 shining, coarsely, densely punctate, with pale, appressed pubescence between and behind basal gibbositities, median 1/3 densely cribrate-punctate, opaque behind eburneous fasciae; apical 1/3 finely, shallowly, densely punctate, with a slightly angulate fascia of appressed whitish pubescence across apical 1/3; entire disk clothed with long, erect, pale hairs. Abdomen moderately sparsely clothed with suberect, pale pubescence; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora incrassate, apices obtusely dentate; tibiae broadly, shallowly grooved, not carinate (see Fig. 12a).

Female: Similar to male. Length 11 mm. Antennae shorter, slightly exceeding middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex feebly subtruncate.

REMARKS. — This large, handsome species may be immediately distinguished from all oth-

ers by the dark metallic-blue integument, the slender, incrassate femora, and lack of tibial carinae. The name refers to the integumental color: *azur* = blue (F.).

***Euderces basimaculatus*, new species**
(Fig. 13)

TYPES. — Holotype male [EMEC] from MEXICO, Colima, vic. El Terrero, 5100 ft., July 18, 1990 (J. Wappes). Allotype and 2 paratypes (1 male, 1 female) from MEXICO, Nayarit, Volcan Ceboruco, July 15–16, 1993 (Wappes, Morris, Huether). Additional 13 paratypes from MEXICO as follows: 1 male, holotype locality and date, 5500 ft. (E. Giesbert); 1 female, Oaxaca, near Chasumba, July 26, 1932 (H. Smith); 1 male, Michoacán, Pedregal near Tancitaro, 6000 ft., "sweeping herbs," June 23, 1941 (H. Hoogstraal); 1 male, 1 female, Oaxaca, 13–14 km E Mitla, 2100 m, August 8, 1986 (H. Howden); 1 female, Michoacán, 18.5 km E Morelia, 2220 m., "oak-pine-Acacia forest," July 28, 1988 (R. S. Anderson); 1 female, Durango, 24 mi. W La Ciudad, 7000 ft., July 21, 1964 (L. A. Kelton); 1 female, Puebla, 4.4 mi. SW Acatepec, July 9, 1977 (J. C. Schaffner); 1 female, Oaxaca, 5.5 mi. NE Huajuapán de León, July 14, 1974 (Clark, Murray, Ashe, Schaffner); 2 females, Guerrero, 6 km W Taxco, July 21–24, 1983 (J. Chemsak, A. & M. Michelbacher); 1 female, Guerrero, 4 mi. W Chilpancingo, 4000 ft., July 15, 1984 (J. B. Woolley); 1 female, Guerrero, 6 km NW Ixcateopan, September 20, 1989 (R. Turnbow). Paratypes are deposited with CNMN, CASC, EMEC, MAIC, JEW, EFGC, RHTC.

DESCRIPTION. — *Male*: Length 6–6.5 mm. Integument piceous, elytra with outer side of feeble basal gibbositities usually marked with moderately large, oblique, indistinct maculae of orange-brown, which may be enlarged to occupy the entire basal gibbose area; mouthparts, antennae, femoral bases and apices, and tarsi often orange-brown, elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching to about elytral apex, third segment nearly twice as long as fourth, segments unarmed apically. Pronotum about 1 1/3 times as long as broad, sides moderately rounded, base impressed, apex somewhat narrowed; discal surface moderately finely reticulate, base and apex indistinctly, finely, sparsely, whitish pubescent; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse

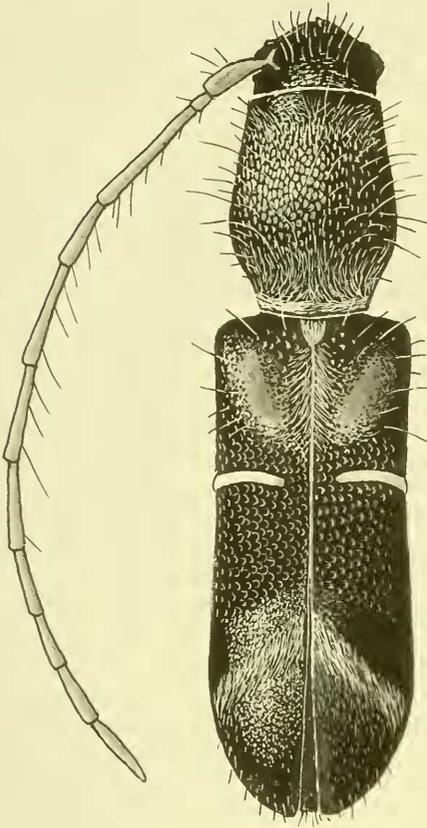


FIGURE 13. *Euderces basimaculatus*, new species, male.

punctures and moderately dense, subdepressed, whitish pubescence; hind-lateral margins of mesepimera and metasternum whitish pubescent. Scutellum with apex broadly rounded, surface densely white pubescent. Elytra about 2 1/2 times as long as width across humeri, sides subparallel, slightly wider behind middle, apices rounded; each side near base feebly gibbose; a narrow, transverse, raised, somewhat arcuate eburneous fascia present from margin to middle of disk on each side at about basal 1/3; surface of basal 1/4 somewhat shining, moderately densely punctate, asperate-punctate on gibbosities, with pale, subrecumbent pubescence surrounding basal gibbosities, premedian 1/3 of elytra densely cribrate-punctate around and mostly behind eburneous fasciae, remainder of elytra impunctate, alutaceous, with apical 1/3 covered with pale,

subdepressed pubescence, the front margin of which is somewhat oblique on each side and more dense; entire disk sparsely clothed with long, erect hairs. Abdomen shining, first sternite with oblique lateral markings of whitish pubescence, remaining sternites sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, surface smooth, shining, with longitudinal bands of pale pubescence, and sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 5.5–7.5 mm. Antennae slightly shorter, slightly exceeding middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — Structurally similar to *E. postipallidus*, but differing from the latter in the color of the elytral integument and in having coarser, more distinct whitish pubescence at the pronotal base. The specific name refers to the integumental markings of the elytra: *basis* = base (L.) + *macula* = spot (L.).

***Euderces batesi*, new species**
(Fig. 14)

TYPES. — Holotype male [EMEC], allotype and 2 paratypes (1 male, 1 female) from MEXICO, Oaxaca, N of Oaxaca City on Hwy #175, 6.7 km S La Cumbre, 1625m, July 3, 1989 (E. Barchet). Additional 41 paratypes from OAXACA, MEXICO as follows: 2 females, Mitla (A. Fenyess); 2 females, 10 mi. NE Huajuapán de León, June 27, 1965 (Burke, Meyer, Schaffner); 1 male, 2 females, 5 mi. SW Oaxaca, 4700 ft. "Acacia thorn scrub," August 4, 1983 (R. Anderson, W. Maddison); 1 male, 18 mi. W Totolapan, July 29, 1963 (J. Doyen); 1 female, Monte Alban, July 2, 1969 (H. Hespeneheide); 1 male, 13–14 km E Mitla, 2100 m, "beating *Acacia* spp.," August 8, 1986 (H. & A. Howden); 1 female, 11 km E Mitla, 1800 m, August 3, 1986 (Howdens); 3 females, 10 mi. E Totolapan, 4000 ft., July 20, 1987 (P. Kovarik, J. Schaffner); 1 female, 3 mi. SE Matatlan, Microondas road, 6650 ft., July 17, 1987 (Kovarik, Schaffner); 1 female, 7.1 km NW Diaz Ordaz, 6400 ft., "beating Oak," July 4, 1989 (J. Beierl); 1 male, 3.5 mi. N Diaz Ordaz, 6400 ft., "reared from *Acacia* twig girdled by *Oncideres* sp.," emerged January 4, 1995 (Giesbert); 1 male, 1 female, Hwy #175 10 km NE Oaxaca, 1800 m, June 11, 1979 (Howdens); 1 male, 2 females, 1.1 mi. W El Tule, 5400 ft., July 17, 1987 (Kovarik, Schaffner); 1 female, 7 km NNW Diaz Ordaz, 2200 m, July 11, 1992 (C. L. Bellamy); 1 male, 11 km NE Oaxaca, 1800 m, "oak-acacia woodland," July 27, 1992

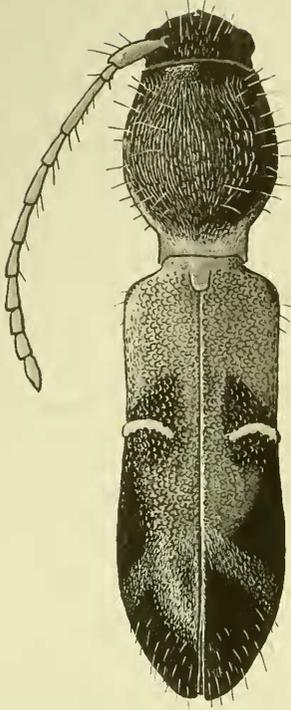


FIGURE 14. *Euderces batesi*, new species, male.

(R. S. Anderson); 2 males, 2 females, S of Oaxaca City, 3 km NW Sola de Vega on Rio Mahuatlan, 1400 m, July 7, 1989 (Barchet); 1 male, 1 female, S of Oaxaca City, 2.5–5 km SW Ayocuesco, 1350–1500 m, July 7, 1989 (Barchet); 3 females, 38 km SE Oaxaca, 2–3 km S Diaz Ordaz, 1600–2075 m, July 4, 1989 (Barchet); 2 males, 1 female, N of Oaxaca City, 14.1 km N intersection Hwys #175 & #191, 2100 m, “dry pine/oak forest,” July 2, 1989 (Barchet); 1 female, E of Oaxaca City, Sierra de Zempoaltepetl, 19.8 km N Macuitl-xochitl, 1900 m, August 1, 1989 (Barchet); 1 male, 1 female, 7–8 mi. E Mitla, 6200 ft., July 3–9, 1994 (E. Giesbert). Additional 7 paratypes from PUEBLA, MEXICO as follows: 1 female, Hwy #131, 14 mi. SE Altepexi, 3000 ft., August 31, 1982 (O’Brien); 1 male, 1 female, 5 mi. W Tepeaca, July 6, 1962 (J. M. Campbell); 1 male, 4.3 mi. SW Acatepec, July 16, 1971 (Clark, Murray, Hart, Schaffner); 1 female, 2 km S Acatepec, August 19, 1982 (Clark & Cave); 1 female, 5 km SSE Chila, 1830 m, July 7, 1992 (R. L. Westcott); 1 female,

2 km E Tecamachalco, July 4, 1974 (J. Chemsak, J. Powell); 1 male, 1 female, 5 km SSE Chila, 1830 m, July 7, 1992 (R. L. Westcott). Paratypes are deposited with EMEC, CASC, CNMN, TAMU, MAIC, JEBC, HAHC, EFGC, JEWG.

DESCRIPTION. — *Male*: Length 3.5–5.5 mm, moderately slender. Integument orange-brown (rarely all black), front and vertex, prothorax except basal portions, apical 1/3 (usually) and along each side of disk to basal 1/3 of elytra, often a small humeral spot, abdomen, and parts of legs infuscated; elytra with a single pair of eburneous markings. Head with eyes moderate-sized, lobes divided, upper lobe small; antennae short, not reaching middle of elytra, third segment slightly longer than scape, about 1 1/3 times as long as fourth, segments unarmed and feebly swollen apically. Pronotum about 1 1/3 times as long as broad, sides rounded, base narrowed and deeply compressed, apex somewhat narrowed, and slightly impressed; discal surface moderately finely striolate, asperate in median area, very sparsely clothed with short pale pubescence near base; entire surface with sparse, long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and moderately sparse, short, silvery pubescence; lateral margins of mesepimera and hind margin of metasternum indistinctly pale pubescent. Scutellum with apex subtruncate, surface pale pubescent. Elytra nearly three times as long as width across moderately narrow, slightly sloping humeri; sides somewhat impressed slightly before middle, widest at apical 1/3; apices narrowly rounded; a narrow, transverse, raised, somewhat arcuate eburneous fascia present from margin to middle of disk on each side at about basal 2/5; surface with basal 3/5 densely cribrate-punctate, apical 2/5 alutaceous, with an indistinct, strongly oblique fascia of short, fine, appressed, pale pubescence across apical 1/3; entire disk sparsely clothed with long, pale, erect hairs. Abdomen shining; first sternite with fine, pale pubescence on each side, remaining sternites sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora abruptly clavate, apical carinae short; surface smooth, shining, very sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 4–5.75 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — *Euderces batesi* may be recognized by the small, slender form, moderately short striae of the pronotal disk, moderately narrow and slightly sloping elytral humeri, the single pair of usually somewhat arcuate elytral eburneous fasciae, the fine, appressed, pale pubescence on the first abdominal sternite, and usually bicolored pattern of the body integument. A very few individuals are found with all black integument, greatly resembling specimens of *E. perplexus*, but *E. batesi* may be recognized by the arcuate eburneous fasciae and the presence of fine, appressed pubescence on the first abdominal sternite. This species matches Bates' original description of *E. laevicauda* quite well and it has usually been erroneously determined as such. Examination of the type specimen of *laevicauda*, however, reveals that species to bear 2 distinct pairs of eburneous markings, a character the description failed to mention. The species name honors H. W. Bates, undoubtedly the single most important pioneer in the study of Neotropical Cerambycidae.

Euderces bellus, new species

(Fig. 15)

TYPES. — Holotype male [EMEC], allotype and 41 paratypes (20 males, 21 females) from GUATEMALA, Baja Verapaz, 19–24 km N Salamá, 4500 ft., May 25–31, 1989 (E. Giesbert, J. Wappes). Eight additional paratypes as follows: 1 female, MEXICO, Chiapas, Chincultic, nr. El Rincon, June 14, 1969 (Bright & Campbell); 1 female, MEXICO, Chiapas, 35 km N Comitán, June 15, 1987 (Wappes); 1 female, GUATEMALA, Baja Verapaz, 16 km N Salamá on Pantín rd., 1550 m, June 1, 1991 (H. & A. Howden); 2 females, GUATEMALA, Zacapa, 12–14 km S San Lorenzo (Sierra de las Minas), 1000–2000 ft., June 3–6, 1989 (Giesbert); 2 females, HONDURAS, Francisco Morazan, El Aguacate, Tatumbla, August 13, 1988 (R. D. Cave); 1 male, HONDURAS, Francisco Morazan, Tegucigalpa, El Rincon, July 13, 1989 (Cave). Paratypes are deposited with EMEC, EFGC, JWC, HAHC.

DESCRIPTION. — *Male*: Length 4.5–6.5 mm. Integument black, mouthparts, antennal scape and second segment, bases of antennal segments

three to seven, mesosternum and mesepisterna, apex of metasternum, metacoxae, and bases of femora reddish, apical 3/5 of elytra black, scutellum and elytral gibbositities infuscated or piceous, elytra with single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching basal 1/3 of elytra, third segment twice as long as fourth, apices of segments three to five apically armed with stout spines of decreasing length, sixth segment feebly dentate. Pronotum somewhat longer than broad, sides rounded, base and apex somewhat impressed and narrowed; disk slightly flattened, surface moderately finely, distinctly, longitudinally striate, finely asperate, base and apex indistinctly, finely, moderately sparsely pale pubescent; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing coarse

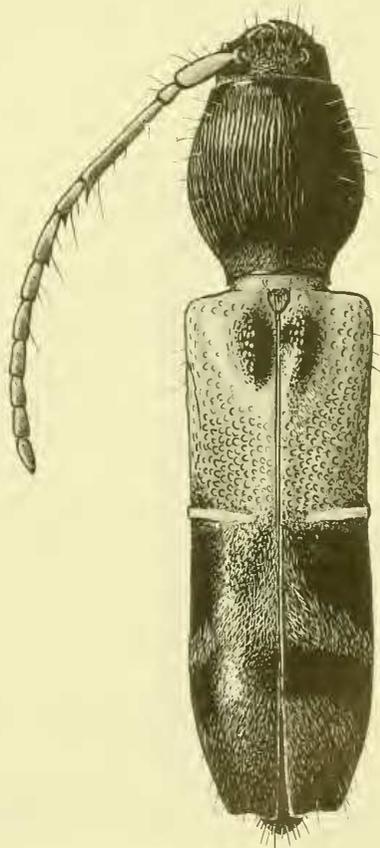


FIGURE 15. *Euderces bellus*, new species, male.

punctures and subdepressed, pale pubescence; hind margins of meso- and metasternum clothed with pale pubescence. Scutellum with apex broadly rounded, surface moderately densely pale pubescent. Elytra nearly three times as long as width across humeri, sides feebly impressed at basal 1/2, slightly wider behind middle, apices subtruncate, slightly emarginate; each side near base with a distinct, low gibbosity near suture; a narrow, transverse or feebly oblique, raised, eburneous fascia present from margin to past middle of disk on each side at about basal 2/5; discal surface moderately shining, base moderately densely punctate, tops of basal gibbositities punctate, dull, densely cribrate-punctate anterior to eburneous fasciae, punctures reduced behind fasciae, apical 1/2 shining, nearly impunctate, finely alutaceous; fine, pale, moderately sparse pubescence present on each side of basal gibbositities, a chevron-like fascia present across apical 3/8 which extends forward on suture past middle; entire disk very sparsely clothed with long, erect hairs. Abdomen shining, first sternite clothed at sides with an oblique patch of white hairs, remaining sternites sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora somewhat abruptly clavate; surface smooth, shining, sparsely clothed with fine, pale golden pubescence.

Female: Similar to male. Length 5–8 mm. Antennae slightly shorter, reaching to about basal 1/4 of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex more narrowly rounded.

REMARKS. — The type series was taken on the yellow, ball-like blossoms of a low growing leguminous plant (*Acacia* sp. ?) in central Guatemala. The specific name refers to the taxon's attractive appearance: *bellus* = beautiful (L.).

***Euderces bicinctus bicinctus* (Linsley)**
(Figs. 4, 16)

Eplophorus bicinctus Linsley, 1935:88; 1942:56; Chemsak, 1969:308. (TYPE LOCALITY: Los Mochis, Sinaloa, Mexico)

Euderces bicinctus Chemsak & Linsley, 1975:87.

Euderces balli Knull, 1935:192; Linsley, 1964:191. (TYPE LOCALITY: Baboquivari Mts., Arizona.)

REDESCRIPTION. — *Male*: Length 5–7.5 mm. Integument piceous, marked with reddish orange

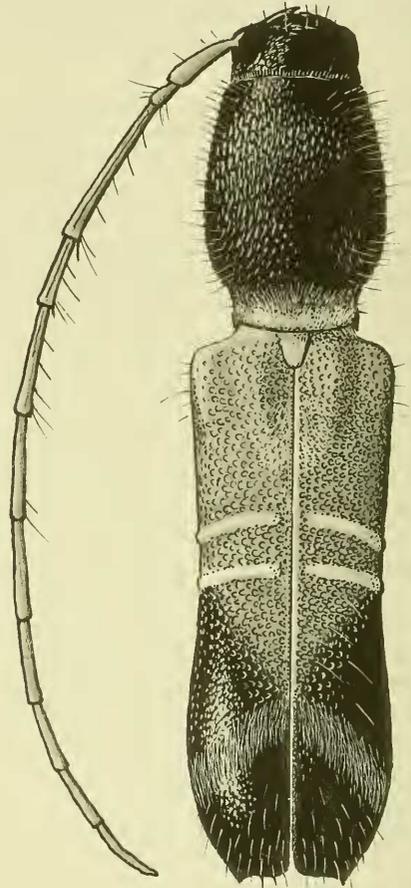


FIGURE 16. *Euderces bicinctus bicinctus* (Linsley), male.

as follows: mouthparts and genae, base of prothorax, meso- and metasternum, scutellum, elytral humeri with variable marking down suture, often with basal half or more orange, legs and antennae; elytra with two pairs of eburneous fasciae. Head with eyes rather small, lobes divided; antennae reaching apex of elytra, third and fourth segments longitudinally grooved, third segment nearly twice as long as fourth, armed at apex with a sharp spine which is about 1/4 as long as fourth segment, apex of fourth segment with a small spine, apex of fifth segment with a small spicule. Pronotum with sides rounded, base narrowed and somewhat impressed; disk with surface longitudinally striate and rugulose, white pubescent fascia present across base; entire sur-

face clothed with long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately dense, erect, white pubescence; hind margins of mesepimera and metasternum clothed with dense, white pubescence. Scutellum subtriangular, clothed with appressed white pubescence. Elytra about 2 1/2 times as long as width across humeri, sides slightly impressed at middle, apices truncate and bidentate; each side near base feebly gibbose; a pair of subequal and subparallel, narrow, transverse, raised, eburneous fasciae present on each side slightly before middle; discal surface with basal 2/3 densely cribrate-punctate, with an indistinct patch of subrecumbent whitish hairs behind basal gibbositities, apical 1/3 impunctate, alutaceous, with an inverted chevron of appressed whitish pubescence at apical 1/4; entire disk sparsely clothed with long, erect, pale hairs. Abdomen with first sternite densely pubescent, remaining sternites very sparsely, finely pale pubescent; terminal sternite about as long as fourth, apex very broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining.

Female: Similar to male. Length 5–7 mm. Antennae slightly shorter. Prosternum lacking coarse punctures, pubescence less dense, subdepressed. Abdomen with terminal sternite slightly longer than fourth, apex somewhat more narrowly rounded.

REMARKS. — The orange markings of the prothorax, elytra, and underside are quite variable, but always present to some degree. The grooves on the basal antennal segments are variable and most distinct on larger male specimens. A few individuals have been seen in which the paler portions of the integument are dark reddish rather than orange. The known flight period is July to September; the range is southern Arizona and northwestern Mexico (see Fig. 4).

***Euderces bicinctus peninsularis* (Linsley), revalidated**
(Fig. 4)

Eplophorus bicinctus peninsularis Linsley, 1942:56; Hovore, 1988:15. (TYPE LOCALITY: San Domingo, Baja California.

DIAGNOSIS. — Differs from *E. bicinctus bicinctus* (Linsley) by the black integumental color, with only a very small area immediately

surrounding each elytral eburneous fascia brownish orange. The femoral apices, tibiae, tarsi, and antennae are brownish orange. Average size slightly smaller: 4.5–7 mm.

REMARKS. — Examination of a large number of specimens reveals little variation in the characteristic integumental color which distinguishes this population. Flight period: July to September in Baja California del Sur (see Fig. 4).

***Euderces biplagiatus*, new species**
(Fig. 17)

TYPES. — Holotype male [EMEC], allotype and 2 female paratypes from MEXICO, Oaxaca, 5.7 mi. SE Quiotepec, 2100 ft., July 21, 1987 (Kovarik, Schaffner). Three additional paratypes from MEXICO as follows: 1 female, Oaxaca, Gen. Juan de los Cues, June 14, 1984 (H. Garcia); 1 male, Puebla, 6 mi. SW Tehuacan, July 8, 1981 (Bogar, Schaffner, Friedlander); 1 male, Puebla, 6 mi. N Tehuacan, August 22, 1987 (J. Doyen). Paratypes are deposited with EMEC, TAMU.

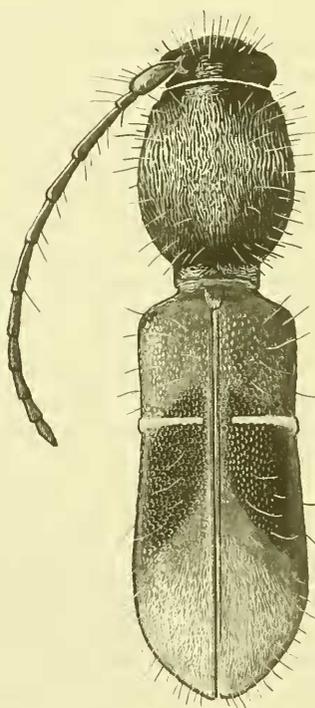


FIGURE 17. *Euderces biplagiatus*, new species, male.

DESCRIPTION. — *Male*: Length 3.75–5 mm, moderately slender. Integument blackish, with elytral base, suture, and apex dull yellow-orange, apex usually somewhat paler yellowish, leaving a large, median, oblong blackish plaga on each side of disk, humeri lightly infuscated; mesosternum, sometimes metasternum and sides of prosternum, mouthparts and tarsi orange; elytra with a single pair of eburneous markings. Head with eyes moderate-sized, lobes divided, upper lobe small; antennae moderately short, reaching to about middle of elytra, third segment slightly longer than scape, about 1 1/2 times as long as fourth, segments unarmed and feebly swollen apically. Pronotum slightly longer than broad, sides rounded, base narrowed and deeply impressed, apex somewhat narrowed, and slightly impressed; discal surface moderately finely striolate, finely asperate in median area, clothed with short, appressed pale pubescence near base; entire surface with sparse, long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and moderately sparse, short, erect pubescence; lateral margins of mesepimera and hind margin of metasternum clothed with fine, silvery pubescence. Scutellum with apex subtruncate, surface pale pubescent. Elytra about 2 2/3 times as long as width across slightly sloping humeri; sides feebly impressed near middle, widest at apical 1/3; apices narrowly rounded; a narrow, transverse, raised, transverse, eburneous fascia present from margin to near suture on each side at about basal 1/3; surface with basal 2/3 densely cribrate-punctate, apical 1/3 alutaceous, clothed with short, fine, subdepressed, pale golden pubescence; entire disk sparsely clothed with long, pale, erect hairs. Abdomen shining; first sternite moderately sparsely clothed with fine, pale pubescence on each side at base, remaining sternites very sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora abruptly clavate, with short apical carinae; surface smooth, shining, very sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 4–5 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex more narrowly rounded.

REMARKS. — This species is close to *E. batesi*, but may be distinguished by the pale yellowish elytral apices and suture, the longer, more trans-

verse eburneous markings and slightly stouter form. The species name refers to the elytral pattern: *bi* = two (L.) + *plaga* = a large, longitudinal spot (L.)

***Euderces boucardi* (Chevrolat)**

(Figs. 2, 12b, 18)

Apilocera boucardi Chevrolat, 1862:535; Bates, 1880:60. (TYPE LOCALITY: Coban, Vera Paz, Guatemala.)

Apelocera Boucardi Aurivillius, 1912:420.

Eplophorus boucardi Blackwelder, 1946:583; Chemsak, 1969:308; Chemsak, Linsley & Mankins, 1980:32.

Euderces boucardi Chemsak & Linsley, 1975:87.

REDESCRIPTION. — *Male*: Length 7.5–10 mm. Integument blackish, legs and antennae brown, elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching apical 1/8 of elytra, third segment about twice as long as fourth, armed at apex with a long, feebly sinuate spine nearly as long as fourth segment, apex of fourth segment with a small, sharp spine. Pronotum about 1 1/3 times as long as wide, sides moderately rounded, somewhat impressed at base and apex; disk with surface dull, longitudinally rugulose or striate except near apex, clothed with depressed golden pubescence which is interrupted at middle by an indistinct, transverse, somewhat arcuate, glabrous fascia; entire surface sparsely clothed with long, erect, golden hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately dense, subdepressed, white pubescence; lateral and hind margins of mesepimera and metasternum with wide bands of dense, white pubescence. Scutellum small, parallel-sided, apex broadly rounded, moderately sparsely pubescent. Elytra about 2 1/2 times as long as width across humeri, sides very slightly impressed at middle; apices truncate, feebly emarginate, outer angle dentate; each side near base somewhat gibbose near suture, gibbosity developed into a low, obtuse tubercle on each side of scutellum; a narrow, transverse, raised, eburneous fascia present on each side at basal 1/3; surface shining, basal 1/3 very sparsely punctate, glabrous except for distinct post-humeral patch of golden pubescence covering basal gibbosities, median 1/3 densely cribrate-punctate and pubescent across middle behind

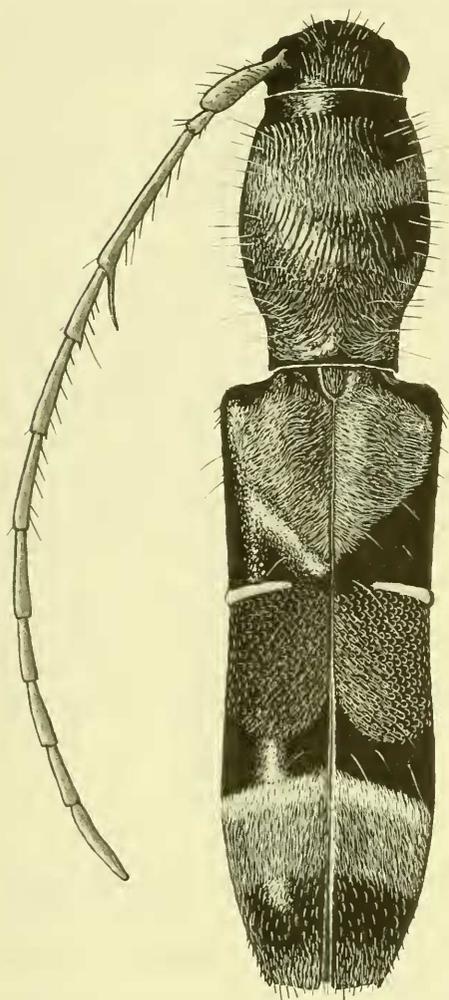


FIGURE 18. *Euderces boucardi* (Chevrolat), male.

eburneous fasciae, apical 1/3 nearly impunctate, with a well-defined, broad, arcuate fascia of golden pubescence across apical 1/3, front margin of pubescent fascia whitish, area behind fascia bearing scattered, short, erect, golden hairs; entire disk sparsely clothed with long, erect, golden hairs. Abdomen shining, first sternite clothed with white pubescence at sides, remaining sternites sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, indistinctly carinate at apices; surface smooth,

shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 7.5–10 mm. Antennae shorter, slightly exceeding middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This is one of the more commonly collected Central American *Euderces*, found from southern Mexico to Costa Rica (see Fig. 2), with a flight period from May to August.

Euderces brailovskyi, new species
(Fig. 19)

TYPES. — Holotype male [UNAM] from MEXICO, Hidalgo, km 30, Carr. Tasquillo-Huichapan, June 4, 1983 (H. Brailovsky). Allotype female and 2 male paratypes from MEXICO, San Luis Potosi, 4 km W Guadalcázar, July 18, 1988 (R. Turnbow) [RHTC].

DESCRIPTION. — *Male*: Length 5–8.25 mm. Integument blackish throughout or sometimes with the basal 1/4 of the elytra (infuscated on humeri and basal gibbosities), mesosternum, and apical portion of metasternum reddish, sometimes with apical 3/8 of elytra dull yellowish; elytra with a single pair of eburneous fasciae. Head with eyes rather small, lobes divided, upper lobes small; antennae slightly longer than elytra, third segment a little more than 1 1/2 times as long as fourth, armed at apex with a small, sharp spine, apex of fourth segment minutely spinose. Pronotum with sides moderately rounded, narrowed and impressed at base and apex, base narrower than apex; discal surface finely, longitudinally striate and rugulose, moderately clothed with appressed, pale golden pubescence which is densest at base, entire surface clothed with long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and moderately dense, subdepressed, white pubescence; lateral and hind margins of mesosternum, and hind margin of metasternum with dense, whitish pubescence. Scutellum rounded, clothed with appressed golden pubescence. Elytra slightly more than twice as long as width across humeri, sides slightly impressed before middle; apices subtruncate; each side near base moderately gibbose; a narrow, raised, transverse eburneous fascia present on each side at basal 1/4 from lateral margin to beyond middle of disk; discal

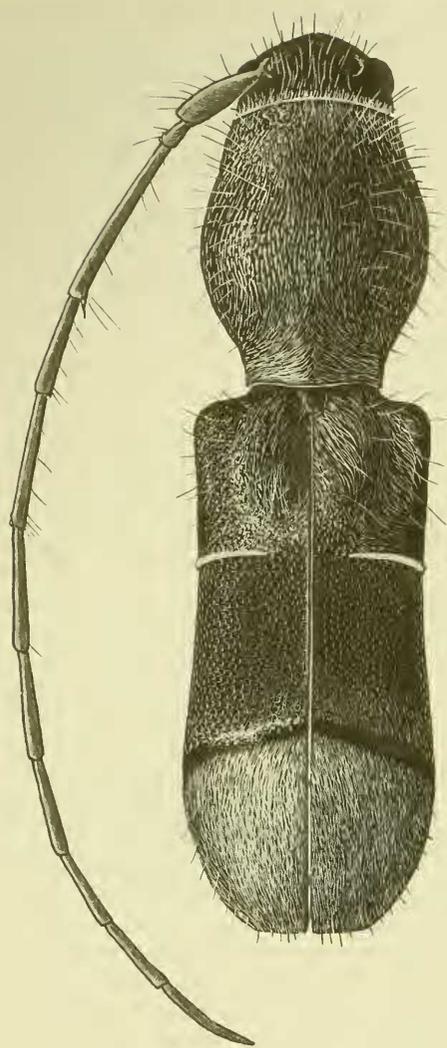


FIGURE 19. *Euderces brailovskyi*, new species, male.

surface with basal 1/4 coarsely, irregularly punctate, moderately sparsely clothed with moderately long, subdepressed, pale pubescence, median 3/8 densely cribrate-punctate, indistinctly clothed with subdepressed golden pubescence, apical 3/8 impunctate, densely clothed behind a narrow, slightly oblique, shining, glabrous line with appressed, pale to golden yellow pubescence; entire disk sparsely clothed with long, erect, pale hairs. Abdomen shining, sparsely pubescent; terminal sternite nearly as

long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of pale pubescence.

Female: Similar to male. Length 6.5 mm. Antennae slightly shorter, reaching apical 1/3 of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species may be distinguished from all others by the narrow glabrous fascia immediately anterior to the apical pubescent patch of the elytra, as well as by the length of the pale hairs which make up the pubescence on the basal 1/4 of the elytra, and by the long male antennae. The holotype appears to be a particularly large and varicolored individual, with the basal 1/3 reddish and the apical 3/8 dark yellow. Integumental color is somewhat variable: two of the three specimens from San Luis Potosi are piceous, lacking reddish or yellowish areas, and one male has the basal 1/3 of the elytra reddish. It is a pleasure to name this species for Dr. Harry Brailovsky of UNAM, Mexico City, who collected the holotype and who has been a great help to the authors' work in Mexico.

***Euderces cleriformis* (Bates)**
(Figs. 2, 20)

Apilocera cleriformis Bates, 1885:306; Chemsak, 1967:74 (lectotype). (TYPE LOCALITY: Bugaba, Panama)

Eplophorus cleriformis Blackwelder, 1946:583; Chemsak, 1967:74.

Euderces cleriformis Chemsak & Linsley, 1975:88.

Apilocera breviformis Bates, 1892:165. (TYPE LOCALITY: Teapa, Tabasco, Mexico)

Apilocera breviformis Aurivillius, 1912:420.

Eplophorus auricomis Chemsak, 1969:309. (TYPE LOCALITY: Turrialba, Costa Rica.) NEW SYNONYMY

REDESCRIPTION. — *Male*: Length 5–7 mm. Integument piceous, usually marked with dull orange as follows: mouthparts, an area on each side of the elytral disk just behind humerus, which is bordered on the inner side by the elytral gibbosity, and at the rear by the eburneous fascia, mesosternum, legs and antennae, elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching slightly beyond middle of elytra, third seg-

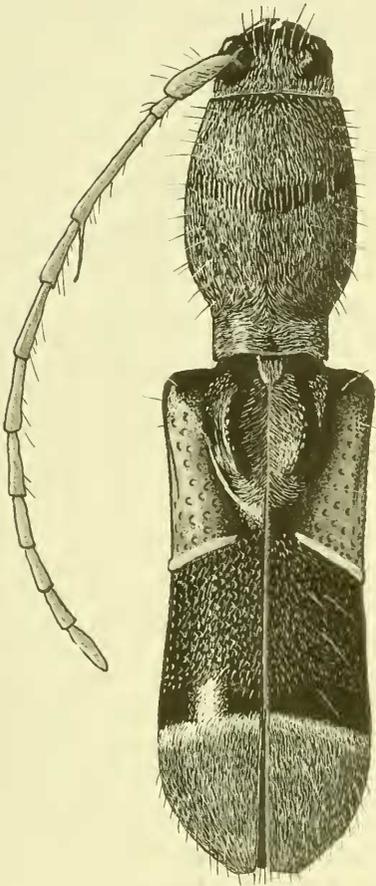


FIGURE 20. *Euderces cleriformis* (Bates), male.

ment nearly three times as long as fourth, apically armed with a long, feebly sinuate, blunt spine which is nearly as long as fourth segment, apex of fourth segment usually feebly dentate. Pronotum with sides rounded; basal 1/6 compressed and narrowed; disk with surface dull, longitudinally rugulose or striate, finely pale pubescent, pubescence interrupted slightly before middle by a moderately narrow, transverse, somewhat arcuate, finely longitudinally striate fascia; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately dense white pubescence; hind margins of mesepimera and metasternum with wide markings of dense, silvery-white pubescence. Scutellum parallel-

sided, apex broadly rounded, moderately clothed with pale, appressed pubescence. Elytra more than twice as long as width across humeri; sides slightly impressed at basal 1/2; apices narrowly and feebly subtruncate; each side near base with a highly elevated, arcuate gibbosity near suture, apices of gibbosities asperate-punctate; a narrow, transverse to slightly oblique, raised, eburneous fascia present on each side slightly before middle; surface shining, with a densely cribrate-punctate and finely pubescent area across middle behind eburneous fasciae, basal 2/5 sparsely, somewhat more coarsely punctate, with appressed pale pubescence on area inside basal gibbosities, apical 1/3 impunctate, with a well-defined pale pubescent patch covering apical 1/4; entire disk moderately sparsely clothed with long, erect, golden hairs. Abdomen with first sternite glabrous except at sides, remaining sternites moderately sparsely pale pubescent; terminal sternite about as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 5–7 mm. Antennae slightly shorter. Prosternum lacking coarse punctures. Abdomen with apex of terminal sternite somewhat more narrowly rounded.

REMARKS. — This species ranges from southern Mexico to Panama (see Fig. 2). The apex of the fourth antennal segment is not distinctly dentate in the Costa Rican specimens seen, and this armature is also very feeble in specimens from the Panamanian population. The flight period extends from May to December. No significant differences were seen to support separating *E. auricomis*.

***Euderces cribellatus* (Bates)**
(Fig. 21)

Apilocera cribellata Bates, 1885:306; Chemsak, 1967:74 (lectotype). (TYPE LOCALITY: Volcan de Chiriqui, Panama.)

Apilocera cribellata Aurivillius, 1912:420.

Eplophorus cribellatus Blackwelder, 1946:583; Chemsak, 1967:78.

Euderces cribellatus Chemsak & Linsley, 1975:87.

MATERIAL EXAMINED. — Lectotype female [BMNH], PANAMA, Volcan de Chiriqui; 1 male, 1 female, COSTA RICA, Guanacaste prov., 3 km SE Rio Naranjo, March 3–8, 1992 (F. D. Parker); 1 male,

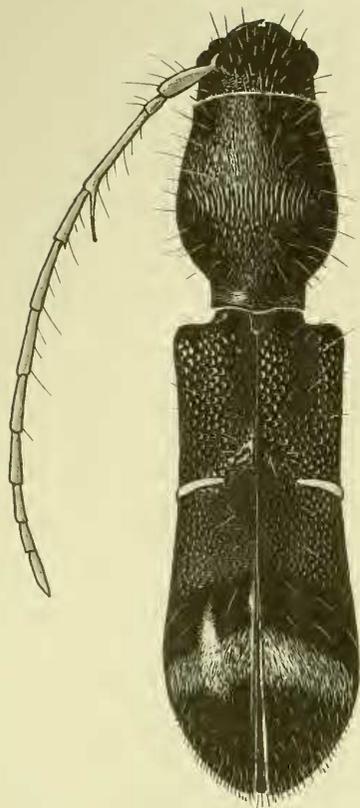


FIGURE 21. *Euderces cribellatus* (Bates), female.

COSTA RICA, Puntarenas, San Vito, Las Alturas, 1500 m., January, 1992 (Hanson & Godoy); 1 female, COSTA RICA, Guanacaste prov., Est. Maritza, 600 m lado Vol. Orosí, Malaise trap, 1989 [INBC]; 1 male, same locality, 1991 [INBC]; 1 male, 1 female, COSTA RICA, Puntarenas prov., vic. Las Alturas, January 23–24, 1996 (F. T. Hovore)[FTHC].

REDESCRIPTION. — *Male*: Length 4.5–6 mm, form slender. Integument blackish brown, mouthparts, vague area near elytral suture at basal 1/4, femoral bases, and sometimes antennae, tibial apices and tarsi dark orange-brown; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching about to apical 1/3 of elytra, third segment slightly more than 1 1/2 times as long as fourth, armed at apex with a long, slender, blunted spine which is nearly as long as fourth segment, apex of fourth segment dentate. Prono-

tum about 1 1/2 times as long as wide, sides moderately rounded, narrowed and compressed across basal 1/8, slightly narrowed to apex; disk with surface shining, longitudinally striate and rugulose across middle, moderately sparsely clothed with fine, appressed golden pubescence across basal impression and on apical 1/3; entire surface sparsely clothed with long, erect, golden hairs; prosternum with posterior 3/5 bearing coarse punctures and subdepressed, pale pubescence; lateral and hind margins of mesepimera, metasternum, and metacoxae clothed with dense, whitish pubescence. Scutellum with apex broadly rounded, surface moderately clothed with fine, golden pubescence. Elytra slightly less than 2 1/2 times as long as width across humeri, sides very slightly impressed before middle, widest before rounded apices; each side behind base moderately gibbous near suture; a narrow, transverse, slightly oblique, raised, eburneous fascia present on each side at basal 2/5 from margin to about middle of disk; surface shining, basal 1/4 nearly glabrous, coarsely, densely punctate except for a moderately distinct impressed, oblique, nearly impunctate fascia near suture between basal gibbositities and eburneous fasciae (indistinct on some specimens), premedian 1/4 dull, densely cribrate-punctate, apical 1/2 shining, impunctate, with a moderately well-defined fascia of pale pubescence across apical 1/3, sometimes limited to a sutural spot, area behind fascia sparsely pubescent; entire disk sparsely clothed with long, erect, golden hairs. Abdomen shining, sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, surface smooth, shining, with indistinct, preapical patches of short, pale pubescence on each face.

Female: Similar to male. Length 7 mm. Antennae slightly shorter, barely reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This rarely collected species from Costa Rica and Panama may be distinguished from all others by the combination of the blackish brown, slender form with a long spine on the third antennal segment, transversally striate pronotal sculpture, and small, depressed, often impunctate and sometimes indistinct area near the suture at the basal 1/4 of elytra behind the moderately distinct postbasal gibbositities.

The lectotype and the Puntarenas specimen have the posterior pubescent elytral fascia reduced to a distinct, rounded sutural spot, while the Guana-caste specimens (figured) have this fascia complete and transverse. The lectotype also differs slightly in coloration, with the antennae and tarsi piceous. The flight period appears to be limited to the dryer months from January to March.

***Euderces cribripennis* Bates**
(Figs. 3, 22)

Euderces cribripennis Bates, 1892:165; Aurivillius, 1912:419; Linsley, 1935:89; Chemsak, 1969:317; Chemsak & Linsley, 1975:87. (TYPE LOCALITY: Chilpancingo, Guerrero, Mexico)

Euderces fenyesi Linsley, 1957:37; Chemsak & Linsley, 1975:87. (TYPE LOCALITY: Cuernavaca, Mexico.) NEW SYNONYMY

REDESCRIPTION. — *Male*: Length 3.5–4.5 mm. Integument blackish (or sometimes with head, prothorax, and basal 1/3 of elytra reddish), femora dark brown, mouthparts, antennae, apices of tibiae, and tarsi orange-brown, elytra with a single pair of eburneous markings. Head with eyes small, moderately prominent, lobes divided, upper lobe small; antennae slightly exceeding middle of elytra, scape moderately robust, third segment slightly longer than scape, about 1 1/3 times as long as fourth, segments unarmed or feebly dentate and slightly swollen apically. Pronotum 1 1/3 times as long as broad, sides rounded, base narrow and deeply compressed, apex slightly narrowed; discal surface moderately finely striolate, finely asperate medially at basal 1/2, very sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing coarse punctures and pale pubescence; lateral portions of mesepimera and hind portion of metasternum indistinctly pale pubescent. Scutellum with apex subtruncate, surface finely pale pubescent. Elytra slightly more than 2 1/2 times as long as width across somewhat narrowed and sloping humeri; sides subparallel, slightly wider behind middle; apices rounded; base without distinct gibbosities; a narrow, transverse, raised, eburneous fascia present from margin nearly to suture on each side at about basal 1/3; surface of disk with basal 3/5 densely cribrate-punctate, apical 2/5 impunctate, alutaceous, sometimes with a very indistinct fascia of short, fine, appressed,

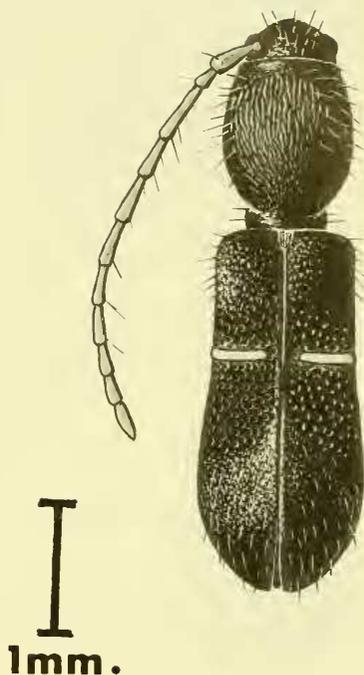


FIGURE 22. *Euderces cribripennis* Bates, male.

pale pubescence across apical 1/3; entire disk sparsely clothed with long, erect hairs. Abdomen shining, very sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, usually with feeble apical carinae; surface smooth, shining, very sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 3.5–5 mm. Antennae shorter, reaching to about basal 1/3 of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — A phenotype with partially reddish integument occurs sympatrically with the typical blackish form in the areas of Chilpancingo, Guerrero, and Cuernavaca, Morelos. Populations east of these points are primarily this bicolored form, but no structural differences are apparent. The flight period is from June to September. The range of *E. cribripennis* is in mainland southwestern Mexico (see Fig. 3). A single

male specimen in rather bad condition but probably belonging to this species, was taken in a Malaise trap at Volcan Cacao, Guanacaste, Costa Rica [INBC]. Specimens appearing to belong to this species have been collected in Baja California, however on closer examination these proved to be individuals of *E. parallelus* with the anterior pair of eburneus markings missing. The present species may be distinguished by the more robust antennal scape, and more widely separated inner ends of the remaining eburneus fasciae.

Examination of the type of *E. fenyesi* Linsley [CASC] showed it to be synonymous with the present species.

***Euderces dilutus* Martins**
(Fig. 23)

Euderces dilutus Martins, 1975:18. (TYPE LOCALITY: Santa Cruz, Bolivia.)

MATERIAL EXAMINED. — 1 female, Huachi, Rio Beni, Bolivia, September (W. M. Mann), "Mulford Bio Expl 1921–22" [NMNH].

REDESCRIPTION. — *Female*: Length 6–6.5 mm. Integument dark reddish brown to blackish, genae, front of head, antennae, and femora reddish brown; elytra with a single pair of eburneus fasciae. Head with eyes moderately small, lobes divided, upper lobes small; antennae reaching past middle of elytra, third segment more than $2\frac{1}{2}$ times as long as fourth, armed at apex with a short, sharp spine, apex of fourth segment with a short spine, apex of 5th segment minutely dentate. Pronotum about $1\frac{1}{4}$ times as long as broad, sides moderately rounded, somewhat impressed toward base; discal surface very finely, moderately densely asperate, with fine, short, irregular striations, moderately densely clothed with appressed, golden pubescence which does not obscure the surface; entire pronotum sparsely clothed with long, erect, pale hairs; prosternum shining, indistinctly rugose; lateral margins of mesepimera and hind margin of metasternum clothed with dense, whitish pubescence. Scutellum with apex rounded, surface shining, indistinctly pubescent. Elytra about $2\frac{1}{2}$ times as long as width across humeri, sides slightly impressed before middle; apices subtruncate; each side near base moderately gibbose close to

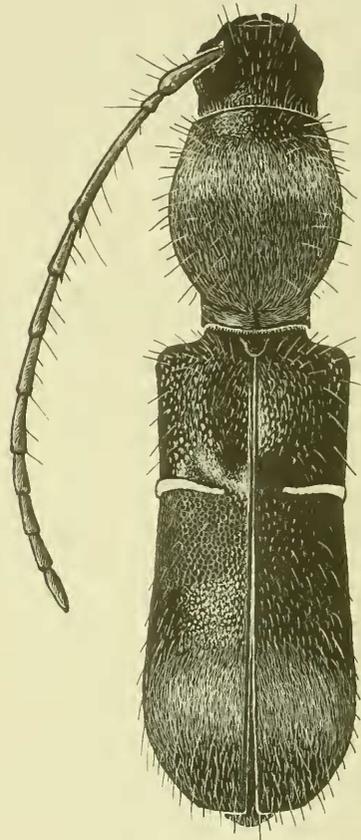


FIGURE 23. *Euderces dilutus* Martins, female.

suture; a transverse, raised, eburneus fascia present on each side at about basal $\frac{1}{3}$ from lateral margin to just past middle of disk, somewhat narrowed toward suture; discal surface with basal $\frac{1}{3}$ moderately densely punctate, tops of gibbositities asperate-punctate, a shining, impunctate area present near suture immediately behind gibbositities, median $\frac{1}{3}$ behind eburneus fasciae moderately densely cribrate-punctate with fine, sparse, golden pubescence, apical $\frac{1}{3}$ moderately coarsely alutaceous, with a wide, moderately distinct, transverse fascia of appressed, pale golden pubescence across apical $\frac{1}{4}$; entire disk clothed with long, erect, pale hairs which are densest near apices. Abdomen sparsely golden pubescent; terminal sternite about as long as

fourth, apex rounded. Legs with femora moderately abruptly clavate, surface smooth, shining, with longitudinal bands of short, pale pubescence.

Male: Unknown.

REMARKS.— The single female specimen seen in this study, apparently assignable to this species, was not compared with the type. The above description and accompanying illustration are based on this specimen. Martins described the elytral apices of the type specimen as being suturally dentate, while the apices of the present specimen are subtruncate and unarmed. This species from the western Amazonian Llanos region of Bolivia has the most southern distribution known in the genus, but is structurally similar to the Mexican *E. aspericollis*, differing primarily by the more pubescent, less asperate pronotal surface, the lack of lateral pubescent markings on the first abdominal sternite, and the smooth area behind the elytral gibbosities. Flight occurs from September to November.

***Euderces dimidiatipennis* (Melzer)**

(Figs. 2, 24)

Apelocera dimidiatipennis Melzer, 1932:216. (TYPE LOCALITY: San Jos, Costa Rica.)

Eplophorus dimidiatipennis Blackwelder, 1946:583.

Euderces dimidiatipennis Chemsak & Linsley, 1975:87.

REDESCRIPTION.— *Male*: Length 5–8 mm. Integument reddish or orange-brown, abdomen, often apical 1/2 of elytra, and prothorax rarely, blackish, or often entirely blackish with legs and antennae dark brown, elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching beyond middle of elytra, segments 3–11 feebly widened and flattened, third segment about 1 1/2 times as long as fourth, apically armed with a long, feebly sinuate, blunt spine which is about 4/5 as long as fourth segment, apex of fourth segment dentate. Pronotum with sides moderately rounded; base compressed and narrowed; apex somewhat narrowed; disk with surface indistinctly, shallowly, longitudinally rugulose or striate, finely pale pubescent, basal 1/2 minutely asperate; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing coarse punctures and moderately dense, subdepressed,

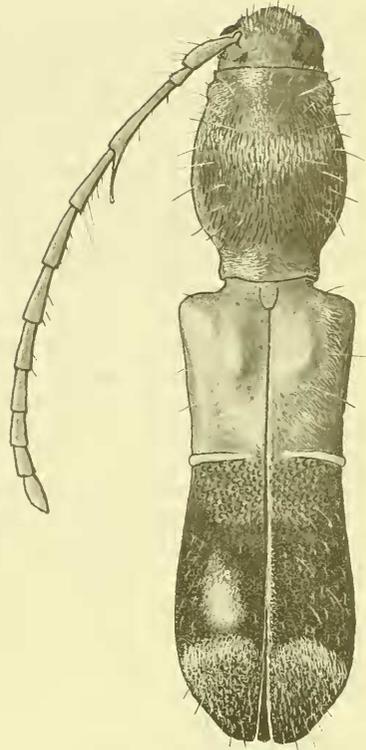


FIGURE 24. *Euderces dimidiatipennis* (Melzer), male.

white pubescence; hind-lateral margins of mesepimera and metasternum clothed with dense, silvery-white pubescence. Scutellum with apex broadly rounded, surface glabrous. Elytra slightly more than 2 1/2 times as long as width across humeri, sides widely, shallowly impressed at basal 1/2, rounded and widest behind middle; apices somewhat narrowly rounded; each side near base with an elevated, arcuate gibbosity close to suture, apices of gibbosities asperate-punctate, surface somewhat depressed behind gibbosities; a narrow, transverse, raised, eburneous fascia present on margin nearly to suture on each side at basal 2/5; surface shining, indistinctly punctate anterior to eburneous fasciae, with pale golden, recumbent pubescence surrounding basal gibbosities, middle 1/5 of elytra behind eburneous fasciae with a moderately wide, transverse, densely cribrate-punctate and finely pubescent area, apical 2/5 impunctate, with a patch of moderately sparse golden pubescence on apical 1/4, the anterior portion being

somewhat denser, and the anterior margin curved on each side and partially composed of whitish pubescence; entire disk sparsely clothed with long, erect hairs. Abdomen shining; sternites sparsely pale pubescent laterally; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, sparsely clothed with fine, pale golden pubescence.

Female: Similar to male. Length 5–8 mm. Antennae slightly shorter, not reaching middle of elytra, segments 3–11 not noticeably widened. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — Examination of the type [NMNH] shows that specimen to be an uncommon color variety, with the prothorax blackish and the basal 1/2 of the elytra reddish orange. Integumental color is quite variable in the large number of specimens examined. The flight period appears to be from December to February, from Nicaragua to the Cordillera Central of Costa Rica (see Fig. 2).

***Euderces disparicrus*, new species**
(Figs. 12e, 25)

TYPES. — Holotype male [EMEC], allotype and 16 paratypes (13 males, 3 females) from GUATEMALA, Baja Verapaz, 19–24 km N Salamá, 4500 ft., May 25–31, 1989 (E. Giesbert, J. Wappes). Additional 42 paratypes as follows: from GUATEMALA: 2 males, Zacapa, 12–14 km S San Lorenzo, 1000–2000 ft., June 3–6, 1989 (Giesbert); 1 male, Zacapa, 12 km S San Lorenzo, 510 m, June 18, 1993 (H. & A. Howden); 1 female, Zacapa, 12–14 km S San Lorenzo, 1–2000 ft., June 3–6, 1989; 4 males, Zacapa, San Lorenzo rd., 1500–1800 ft., June 1–10, 1991 (Wappes); 1 male, Zacapa, nr. San Lorenzo, 4000–6000 ft., April 13, 1990 (Wappes); 1 female, Zacapa, 3 km W Teculután, 300 m, June 3, 1991 (H. & A. Howden); 1 male, Zacapa, Sierra de las Minas, 6 km NW San Lorenzo, 6000 ft., April 13, 1990 (Giesbert); 1 female, El Progreso, Sierra de las Minas, 15 km N Estancia de la Virgen, 4400 ft., April 18, 1990 (Giesbert); from HONDURAS: 5 males, 9 females, Olancho, Parque Nac. La Muralla, May 24–27, 1995 (R. Turnbow, J. E. Wappes); from MEXICO: 1 male, 3 females, Chiapas, Parque Nacional Sumidero, 1000 m, May 29–June 4, 1990 (H. & A. Howden); 1 female, same locality, June 23–24, 1990 (J. Huether); 1 male, 1 female, same

locality, June 9, 1991 (F. W. Skillman, Jr.); 1 female, Chiapas, 17 km W Tuxtla Gutierrez, 3300 ft., June 27–July 8, 1986 (Giesbert); 2 males, 1 female, same locality, June 21–25, 1987 (Giesbert); 3 males, 1 female, Chiapas, nr. Tuxtla Gutierrez, 500–600 m, ex. flowers, June 2, 1991 (J. S. Ashe); 1 female, Oaxaca, 19 mi. S Matias Romero, June 25, 1969 (D. E. Bright). Paratypes are deposited with EMEC, CNMN, SMUK, EFGC, JPHC, FWSC, RHTC, JEW, HAHC.

DESCRIPTION. — *Male*: Length 4–6.5 mm. Integument black (sometimes with apex of head, and rarely with entire integument reddish), mouthparts, antennae, apices of tibiae, and tarsi orange-brown; elytra with a single pair of

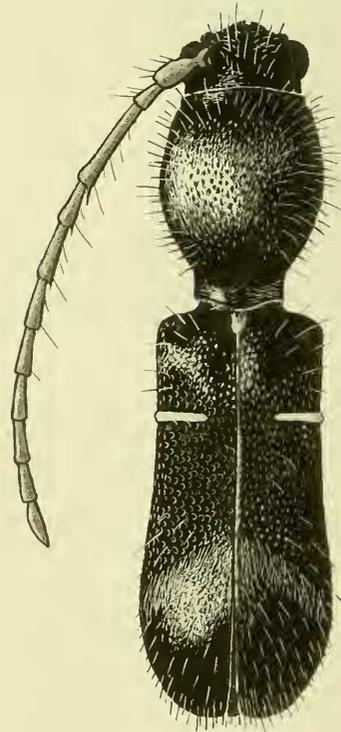


FIGURE 25. *Euderces disparicrus*, new species, male.

eburneous fasciae. Head with eyes moderately small, upper lobes greatly reduced or absent; antennae reaching beyond middle of elytra, third segment about twice as long as fourth, apically armed with a moderately short, sharp spine, apices of fourth and fifth segments minutely spinose. Pronotum about $1\frac{1}{4}$ times as long as broad, sides rounded, basal $\frac{1}{6}$ deeply impressed and narrowed; disk with surface finely alutaceous, moderately densely asperate, appressed pubescence limited to extreme base; entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior $\frac{1}{2}$ bearing moderately coarse punctures and subdepressed, white pubescence; lateral margins of mesepimera and posterior margin of metasternum clothed with dense, silvery-white pubescence. Scutellum small, apex broadly rounded; usually white pubescent. Elytra a little more than twice as long as width across humeri, sides slightly impressed at basal $\frac{1}{2}$, widest just before broadly rounded apices; each side near base with a small, feeble gibbosity near suture; a narrow, transverse, raised, eburneous fascia present from near margin to middle of disk on each side at basal $\frac{1}{4}$; surface shining and nearly impunctate at extreme base, densely cribrate-punctate anterior and posterior to eburneous fasciae for about $\frac{1}{2}$ of the elytral length, apical $\frac{1}{4}$ impunctate, alutaceous, with a moderately indistinct oblique fascia of whitish pubescence on each side; entire disk sparsely clothed with long, erect hairs. Abdomen shining, sternites very sparsely pale pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora gradually clavate, upper side curved more than underside, surface moderately coarsely scabrous, with a variably distinct subapical carinae on mesofemora (sometimes on metafemora), sparsely pale pubescent (see Fig. 12e).

Female: Similar to male. Length 4.5–6.5 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species is distinct by the combination of the small size and gradually clavate and scabrous femora. Superficially, *E. disparicrus* resembles *E. reticulatus* and *E. pusillus*, but may easily be separated by the form of the femora, as well as by the eburneous fasciae not reaching the margins. The specific name

refers to the form of the femora: *dispar* = different (L.) + *crus* = leg (L.).

***Euderces elvirae*, new species**
(Fig. 26)

TYPES. — Holotype male [EMEC] from MEXICO, Oaxaca, 11.1 km NW Diaz Ordaz, 2400 m., July 4, 1989 (E. Barchet). Allotype [HAHC] from Oaxaca, El Cerezal, 36 km NE Oaxaca, 2300 m., June 12, 1979 (H. & A. Howden).

DESCRIPTION. — *Male*: Length 6 mm. Integument dark brown, parts of pronotum, basal $\frac{1}{3}$ of elytra, underside from head to metasternum, and parts of legs somewhat paler orange-brown, elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching past middle of elytra, fourth segment about $\frac{2}{3}$ as long as third, segments unarmed apically. Pronotum about $1\frac{1}{4}$

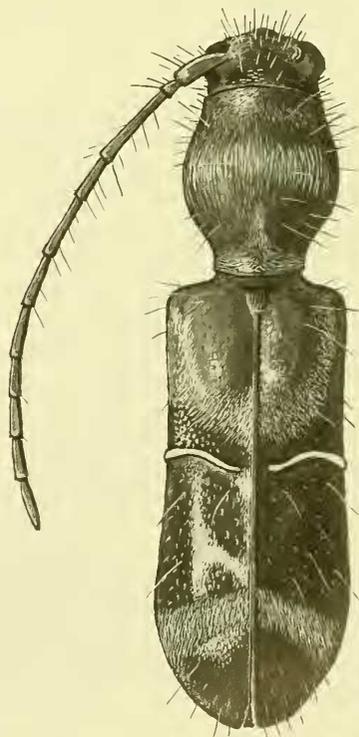


FIGURE 26. *Euderces elvirae*, new species, Holotype male.

times as long as broad, sides moderately rounded, base narrowed and impressed, apex somewhat narrowed; discal surface moderately shining, finely, longitudinally striate at middle, base and apex finely scabrous and subasperate, pale pubescence moderately sparse at apex and extending forward from middle of base; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and indistinct pale pubescence; hind-lateral margins of mesepimera and metasternum indistinctly pale pubescent. Scutellum with apex broadly rounded, surface sparsely clothed with pale pubescence. Elytra about 2 1/2 times as long as width across humeri; sides subparallel, slightly wider behind middle; apices rounded; each side near base moderately broadly gibbose; a narrow, transverse, raised, somewhat arcuate eburneous fascia present from margin to near suture on each side at about basal 1/3; surface of basal 1/4 somewhat shining, moderately sparsely, shallowly punctate, with pale, subrecumbent pubescence bordering basal gibbositities, apical 2/3 shining, coarsely, moderately sparsely, shallowly punctate, punctures reduced to absent near apices; a moderately distinct, oblique fascia of pale pubescence present across apical 1/3; entire disk sparsely clothed with long, erect hairs. Abdomen shining, first sternite with indistinct lateral patches of recumbent, pale pubescence, remaining sternites sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, surface smooth, shining, sparsely clothed with pale recumbent pubescence and long, erect, pale hairs.

Female: Similar to male. Length 6 mm. Antennae slightly shorter, reaching to about middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species may be recognized by its small size, shining brown integument, and by the lack of mid-elytral densely cribrate-punctate areas. It is a pleasure to name this species for Elvira Barchet Beierl in recognition of her collecting efforts.

Euderces grossistriatus, new species
(Fig. 27)

TYPES. — Holotype male [EMEC] allotype and 1 female paratype from MEXICO, Veracruz, 10 km N Fortin, July 21–29, 1976 (E. Giesbert). Three additional paratypes from MEXICO, Veracruz as follows: 1 female, Orizaba, June 15, 1920 (Psota); 1 male, 1 female, 7 mi. SE Orizaba, June 19–20, 1983 (B. K. Dozier). Paratypes are deposited with EMEC, EFGC.

DESCRIPTION. — *Male:* Length 7 mm. Integument blackish, front of head, antennae, meso- and metasterna, legs, and small area of elytra surrounding lateral ends of the single pair of eburneous fasciae light brown. Head with eyes moderately small, lobes divided; antennae slightly exceeding middle of elytra, third segment nearly three times as long as fourth, apically armed with a long spine which is distinctly longer than the fourth segment, apex of fourth segment with a strong, sharp spine; fifth segment with a small spicule. Pronotum with sides widely rounded, basal 1/5 impressed and narrowed, apical 1/5 moderately narrowed; disk somewhat flattened, surface distinctly, strongly, longitudinally striate except at base and apex; base with fine, pale, appressed pubescence; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing coarse punctures and moderately dense, subdepressed, white pubescence on both sides of glabrous middle; hind-lateral margins of mesepimera and sides of hind margin of metasternum clothed with dense, silvery-white pubescence. Scutellum with apex broadly rounded, surface moderately sparsely pale pubescent. Elytra nearly 2 1/2 times as long as width across humeri, sides slightly impressed at basal 1/2, subparallel, apices rounded; each side near base with a distinct, arcuate gibbosity near suture, surface somewhat depressed behind gibbositities; a narrow, transverse, raised, eburneous fascia present from margin to near suture on each side at basal 1/3; surface shining, indistinctly punctate anterior to eburneous fasciae, pale golden, recumbent pubescence present on and between basal gibbositities, middle 1/5 of elytra behind eburneous fasciae with a moderately wide, transverse, densely cribrate-punctate band, remainder of elytra shining, moderately sparsely, indistinctly punctate, an angulate fascia of moderately sparse



FIGURE 27. *Euderces grossistriatus*, new species, female.

golden pubescence present across apical 1/4; entire disk sparsely clothed with long, erect hairs. Abdomen shining; sternites sparsely pale pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal vittae of fine, pale golden pubescence.

Female: Similar to male. Length 6–7 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum shining, nearly glabrous. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS.— This species may be distinguished by the distinct, coarse striations on the central portion of the pronotal disk, and by the shining blackish integument with appendages and parts of the underside light brown. The spe-

cies name refers to the sculpture of the pronotal disk; *grossus* = coarse (L.) + *stria* = furrow (L.).

***Euderces guatemalensis*, new species**
(Fig. 28)

TYPES.— Holotype male [EMEC], allotype and 7 paratypes (2 males, 5 females) from GUATEMALA, Baja Verapaz, 19–24 km N Salam, October 23–24, 1990 (E. Giesbert). Seven additional paratypes as follows: from GUATEMALA: 1 female, Baja Verapaz, 17.5 km N Salamá (on #5), 1650 m., “oak forest,” June 29, 1993 (R. Anderson); 1 female, Escuintla, 4 km N Palin, 4500 ft., June 21, 1966 (J. M. Campbell); 1 female, San Jorge Muxbal, October 31, 1990 (Giesbert); 1 female, Guatemala, Guatemala (City), July, 1984 (R. Perez); from HONDURAS: 2 females, Ocotepeque, 10.5 km E Ocotepeque, 1400 m, on *Phoradendron* sp., June 16, 1994 (Anderson); 1 male, Intibuca, 1–5 km W La Esperanza, Sept 26, 1995, on flowers (F. T. Hovore); 1 female, Olancho, P. N. La Muralla, June 1, 1995 (R. Tumbow). Paratypes are deposited with CNMN, FTHC, EFGC, JEWIC.

DESCRIPTION.— *Male*: Length 5–7 mm, form moderately slender. Integument black, mouthparts, front of head, scape and basal segments of antennae, base of prothorax, mesosternum, coxae, apex of metasternum, scutellum, basal 1/2 of elytral disk except sides and tops of gibbosities, wide band across middle of elytra behind single pair of eburneous fasciae, bases of femora, apices of tibiae, and tarsi reddish orange. Head with eyes moderately small, lobes divided; antennae reaching to about middle of elytra, third segment slightly more than 1 1/2 times as long as fourth, apically armed with a long, feebly sinuate, blunted spine which is about 3/4 as long as fourth segment, apex of fourth segment dentate. Pronotum about 1 1/3 times as long as broad; sides moderately rounded, base widely impressed and narrowed, apex somewhat narrowed; disk with surface dull, finely, densely asperate, indistinctly, finely, moderately sparsely pale pubescent; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing coarse punctures and moderately dense, subdepressed, white pubescence; hind-lateral margins of mesepimera and

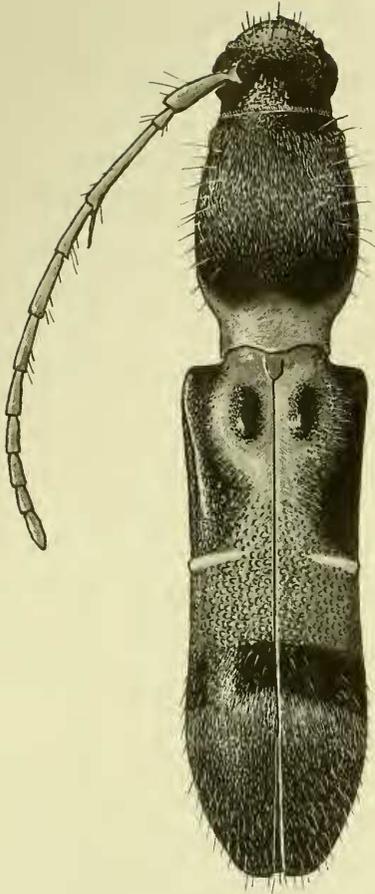


FIGURE 28. *Euderces guatemalensis*, new species, male.

metasternum clothed with silvery-white pubescence. Scutellum with apex broadly rounded, surface glabrous. Elytra about three times as long as width across humeri; sides slightly impressed at basal 1/2, rounded and widest behind middle; apices subtruncate to rounded; each side near base with an elevated, slightly elongated gibbosity near suture; a narrow, transverse or slightly oblique, raised, eburneous fascia present from margin to middle of disk on each side at about basal 1/3; surface moderately shining, indistinctly punctate anterior to eburneous fasciae, with fine, pale golden, recumbent pubescence surrounding basal gibbosities, middle 1/5 of elytra behind eburneous fasciae with a moderately wide, transverse, densely cribrate-punctate and finely pubescent area, apical 2/5 impunctate, a fascia of whitish pubescence present across

apical 1/3, anterior to which the surface is finely, moderately sparsely, golden pubescent; entire disk sparsely clothed with long, erect hairs. Abdomen shining; first sternite with hind lateral margin clothed with a patch of white hairs, remaining sternites with sparse, erect, pale pubescence; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, sparsely clothed with fine, pale golden pubescence.

Female: Similar to male. Length 5.5–7.5 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species is similar to the sympatric *E. bellus* in general form and color, but may be easily separated by the antennal spines, the finely, densely asperate pronotum, and the well-developed elytral gibbosities. The single specimen from Olancho, Honduras appears to be a melanic individual, without distinct reddish orange dorsal integument, giving an entirely black appearance to the body. The legs and underside, however maintain the typical integumental color. The species is named for the country of origin.

***Euderces guerinii* (Chevrolat), new combination**

Apilocera Guerinii Chevrolat, 1862:535. (TYPE LOCALITY: Nouvelle-Grenade (Colombia).)

Apilocera Guerini Aurivillius, 1912:420.

Eplophorus guerini Blackwelder, 1946:583.

ORIGINAL DESCRIPTION (TRANSLATION). — “Slender, punctate, black; head, apical third of prothorax, and elytra toward apices widely gray, with narrow eburneous fasciae in middle; metathorax and sternum toward base with lateral transverse white lines; third antennal segment with long spine. Length 7 mm; width 1.5 mm.”

REMARKS. — We have been unable to locate and examine the type of this species. Comparison of the types may prove *E. posticus* or *E. paraposticus* to be synonyms of *E. guerinii*.

***Euderces hoegei* (Bates)**
(Figs. 4, 29)

Apilocera Högei Bates, 1885:305. (TYPE LOCALITY: Cerro de Plumas, Veracruz, Mexico.)

Apelocera Högei Aurivillius, 1912:420.

Eplophorus högei Blackwelder, 1946:583.

Eplophorus hoegei Chemsak, 1969:309.

Euderces hoegei Chemsak & Linsley, 1975:87.

REDESCRIPTION. — *Male*: Length 4.25–6 mm. Integument black, marked with dull orange as follows: apex of head and genae, antennal scape, wide fascia across elytra slightly before middle encompassing the eburneous fasciae and narrowest at suture, bases of femora, coxae, tibial apices, and tarsi; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae short, not quite reaching middle of elytra, third segment more than twice as long as fourth, armed at apex with a long, feebly sinuate, blunt spine which is about as long as fourth segment, apex of fourth segment with a very short spine. Pronotum with sides rounded; basal 1/6 impressed and narrowed; disk with surface dull, longitudinally rugulose; base and apex with fine, pale, recumbent pubescence; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing coarse punctures and moderately dense, white pubescence; hind margins of mesepimera and metasternum distinctly marked with dense, silvery-white pubescence. Scutellum parallel-sided, apex broadly rounded, pubescence sparse. Elytra more than twice as long as width across humeri; sides slightly impressed at basal 1/2; apices broadly rounded; disk with well-developed subvertical gibbosities on each side near base, apices of gibbosities punctate; a narrow, transverse, raised, eburneous fascia present on each side slightly before middle, fasciae narrowed and subacuminate toward suture; surface shining, with a dense, cribrate punctured area across middle 1/3, mostly behind eburneous fasciae, basal 1/3 somewhat more sparsely punctate, apical 1/3 impunctate, alutaceous; recumbent pale pubescence present on area surrounding basal gibbosities, and behind a black band as a well-defined patch covering apical 1/4; entire disk sparsely clothed with erect, pale hairs. Abdomen shining, first sternite nearly glabrous, remaining sternites moderately pale pubescent;

terminal sternite about as long as fourth, apex very broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 4.5–6 mm. Antennae slightly shorter. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex somewhat more narrowly rounded.

REMARKS. — This species is very close to *E. spinicornis*, differing only in minor details such as the form of the scutellum, the slightly smaller average size, and the predominantly black integument with paler areas differently placed. No intergradations between these two phenotypes were seen. The flight period is from July to October. The range appears to be confined to

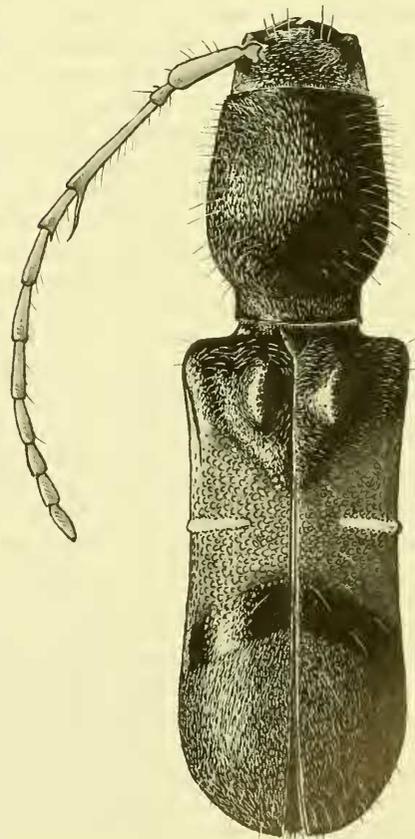


FIGURE 29. *Euderces hoegei* (Bates), male.

southern Mexico. All specimens examined were from the State of Chiapas. (Bates records a Veracruz type locality that is at present impossible to locate accurately.)

***Euderces howdeni* Chemsak**
(Fig. 30)

Euderces howdeni Chemsak, 1969:314; Chemsak & Linsley, 1975:87. (TYPE LOCALITY: 24 miles W. La Ciudad, Durango, Mexico.)

REDESCRIPTION. — *Male*: Length 7 mm, form subcylindrical. Integument dark reddish brown; elytra with a single pair of eburneous fasciae. Head with erect and subdepressed, coarse white pubescence; eyes moderately small, lobes divided; antennae reaching to about elytral apex, third segment minutely dentate at apex, nearly 1 1/2 times as long as scape, which is subequal to fourth, remaining segments unarmed apically. Pronotum slightly longer than broad, sides moderately rounded, base impressed, each side shallowly impressed before somewhat narrowed apex; discal surface shining, moderately coarsely asperate-punctate across middle, with subdepressed, curved, moderately coarse, white pubescence and long, coarse, whitish erect hairs intermixed; sides of prothorax coarsely punctate; prosternum with posterior 3/5 bearing coarse punctures and moderately dense, subdepressed, white pubescence; underside bearing coarse white, depressed pubescence, which is denser at hind and lateral margins of mesepimera and metasternum. Scutellum moderately large, with apex broadly rounded, surface clothed with dense white pubescence. Elytra about 2 1/2 times as long as width across humeri, sides parallel; apices rounded; a narrow, transverse, raised, eburneous fascia present from near margin to about middle of disk on each side near basal 1/3; surface somewhat shining, moderately densely punctate, with moderately sparse, subdepressed, curved, coarse, white pubescence somewhat denser at suture, with a broad, oblique fascia of the same pubescence at apical 1/3; entire disk moderately sparsely clothed with very long, erect white hairs. Abdomen moderately densely clothed with white pubescence; terminal sternite nearly as long as fourth, apex broadly rounded. Legs sparsely clothed with long, erect, white hairs; femora moderately abruptly clavate, sur-

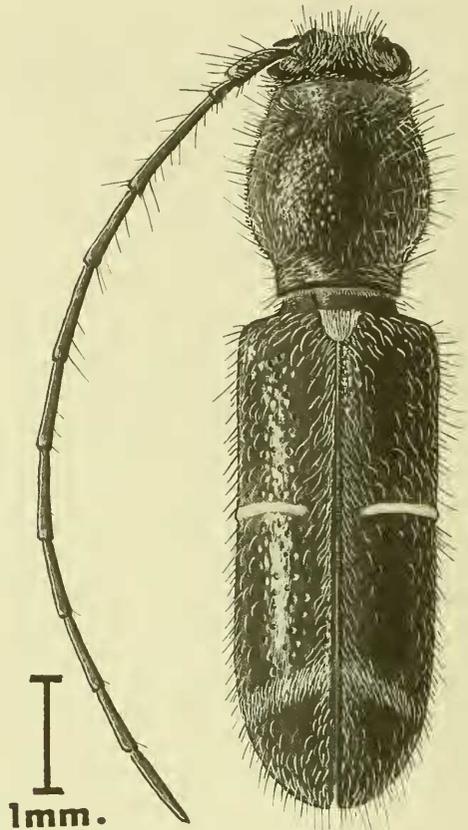


FIGURE 30. *Euderces howdeni* Chemsak, Holotype male.

face smooth, shining, bases with coarse, white depressed pubescence.

Female: Not seen.

REMARKS. — This species differs by its coarse, white, curved, and subdepressed pubescence, and from all but *E. turnbowi*, *E. succinus* and *E. elvirae* by the lack of cribrate-punctate areas on the elytra. The type was collected in June.

***Euderces laevicauda* Bates**
(Fig. 31)

Euderces laevicauda Bates, 1885:304; Aurivillius, 1912:419; Chemsak, 1969:317; Chemsak & Linsley, 1975:87. (TYPE LOCALITY: San Gerónimo, Guatemala.)

Euderces cribratus Bates, 1885:304; Aurivillius, 1912:419; Chemsak, 1969:314; Chemsak & Linsley, 1975:87. (TYPE LOCALITY: San Joaquin, Guatemala.) **NEW SYNONYMY.**

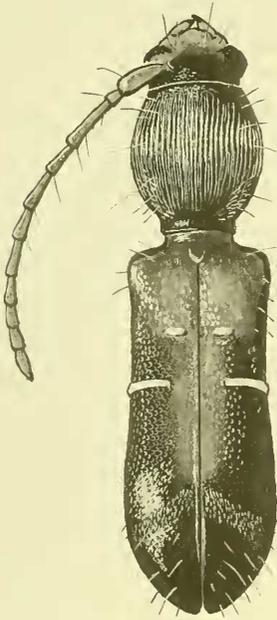


FIGURE 31. *Euderces laevicauda* Bates, male.

MATERIAL EXAMINED. — From GUATEMALA: 1 female, San Gerónimo (Champion); 1 male, Vera Paz, San Joaquin (Champion); 1 male, 4 females, Baja Verapaz, 19–24 km N Salamá, October 23–24, 1990 (E. Giesbert); 1 female, Baja Verapaz, 8 km S San Jeronimo, October 23–25, 1990 (E. Giesbert); from MEXICO: 13 males, 22 females, Chiapas, 2–6 km S La Trinitaria, October 19–20, 1988 (E. Giesbert, R. Turnbow, J. Wappes); 7 males, 5 females, same locality “on Compositae,” October 22, 1990 (F. Hovore); 2 males, Chiapas, 11 km S Bochil “ex. Acacia,” September 29–30, 1989 (Hovore).

REDESCRIPTION. — *Male*: Length 4–5 mm, form moderately slender. Integument blackish to dark brown, appendages usually slightly lighter brown, tarsi paler; elytra often with an ill-defined, pale, longitudinal area at middle of suture, with two pair of eburneous markings. Head with eyes moderately prominent, lobes divided, upper lobe small; antennae reaching to about middle of elytra, third segment slightly longer than scape, about twice as long as fourth, segments unarmed and slightly swollen apically.

Pronotum slightly longer than broad, sides rounded, basal 1/6 narrowed and deeply impressed, apex somewhat narrowed; discal surface somewhat shining, moderately finely striolate or asperate-striolate, very sparsely clothed with long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and moderately sparse whitish pubescence; lateral margins of mesepimera and metasternum indistinctly pale pubescent. Scutellum with apex subtruncate, surface indistinctly pale pubescent. Elytra slightly more than 2 1/2 times as long as width across humeri; sides subparallel, slightly wider behind middle; apices rounded; each side near base feebly tumid; a narrow, transverse, raised, somewhat arcuate eburneous fascia present from margin to middle of disk on each side at about basal 2/5, an additional small, raised, transverse eburneous lineole present on each side near suture at basal 1/5; surface of basal 1/5 somewhat shining, moderately densely punctate, median area densely cribrate-punctate from anterior eburneous markings to apical 2/5, remainder of elytra impunctate, alutaceous, with an indistinct, slightly oblique fascia of short, fine, appressed, pale pubescence across apical 1/3; entire disk sparsely clothed with long, erect hairs. Abdomen shining; first sternite with an indistinct, oblique marking of fine, pale pubescence on each side, remaining sternites sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora abruptly clavate; surface smooth, shining, very sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 4.5–6 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species may be separated from *E. perplexus*, *E. propinquus* and *E. batesi* by the long, slender, uninterrupted striae of the pronotal disk. From *E. batesi* it may also be separated by its single pair of eburneous markings and lack of femoral apical carinae and from *E. perplexus* and *E. propinquus* by the oblique pubescent macula at each side of the first abdominal sternite. Examination of the type specimen reveals that *E. cribratus* Bates is a somewhat melanic form of *E. laevicauda* with the pale area of elytral integument restricted to the suture.

Flight occurs in September and October from southern Mexico (Chiapas) to Guatemala.

Euderces linsleyi, new species
(Fig. 32)

TYPES. — Holotype male [EMEC] from PANAMA, Chiriquí prov., 7 km SE Fortuna Dam, 1200 m., May 8, 1993 (A. Gillogly, H. Stockwell). Allotype from PANAMA, Chiriquí prov., vicinity of Fortuna Dam, February 17, 1987 (E. Giesbert). Four additional paratypes as follows: 1 female, COSTA RICA, Cartago prov., 18 km NE Turrialba, February 4–10, 1978 (Giesbert); 1 female, PANAMA, Bocas del Toro prov., 15 km S Punta Peña, May 29, 1987 (F. Hovore); 1 male, PANAMA, Bocas del Toro prov., 10 km NE Fortuna Dam, 3400 ft., May 23–26, 1984 (Giesbert); 1 female, PANAMA, Panam prov., Cerro Campana, 2700 ft., June 3–5, 1981 (Giesbert). Paratypes are deposited with EFGC, FTHC.

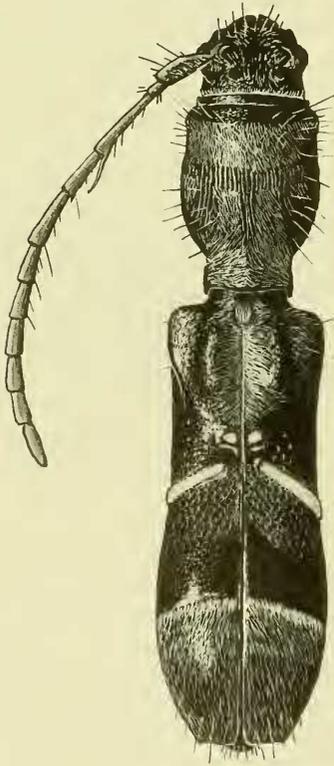


FIGURE 32. *Euderces linsleyi*, new species, female.

DESCRIPTION. — *Male*: Length 6–9 mm. Integument blackish, mouthparts, coxae, tarsi, and sometimes parts of underside orange-brown, legs and antennae usually brownish, sides of elytra at base rarely orange-brown, elytra with two pairs of eburneous markings. Head with eyes moderately small, lobes divided; antennae exceeding middle of elytra, third segment slightly less than 1 1/2 times as long as fourth, armed at apex with a long, blunted, feebly sinuate spine which is 2/3 as long as fourth segment, apex of fourth segment with a small spine or sharply dentate. Pronotum about 1 1/2 times as long as wide, sides moderately sinuate, basal 1/5 strongly narrowed and impressed, slightly narrowed just behind apex, and somewhat narrower at apex; disk with surface longitudinally striate except near base and apex, clothed with depressed golden pubescence, which is interrupted at middle by an indistinct, transverse, somewhat arcuate, glabrous fascia, the hind margin of which is sharply extended posteriorly at middle and sides; entire surface sparsely clothed with long, erect, golden hairs; prosternum with posterior 1/2 bearing coarse punctures and moderately dense, subdepressed, white pubescence; lateral margins of mesepimera and hind margin of metasternum with wide markings of dense, white pubescence. Scutellum small, parallel-sided, apex broadly rounded, clothed with fine, golden pubescence. Elytra about three times as long as width across humeri; sides slightly impressed at middle; apices truncate to emarginate-truncate, outer angles often dentate; each side near base with a well-developed, elevated, elongate gibbosity; a narrow, oblique, raised, eburneous fascia present on each side at about basal 1/3, with a small, oval, raised, eburneous dot on each side near suture just behind basal gibbosity; surface shining, basal 1/3 sparsely punctate, glabrous except for a large, distinct posthumeral patch of appressed golden pubescence covering basal gibbosities, median 1/4 with a densely cribrate-punctate and pubescent band across middle just behind eburneous fasciae, apical 1/2 impunctate, with an arcuate fascia of golden pubescence across apical 1/3, front margin of pubescent fascia well-defined, whitish, area behind fascia moderately clothed with, short, appressed golden hairs; entire disk with scattered, long, erect, golden hairs. Abdomen shining; first sternite clothed with white pubescence at sides, remaining sternites sparsely

pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, partially clothed with short, pale pubescence.

Female: Similar to male. Length 7–9 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS.— This species shares with *E. laevicauda*, *E. perplexus*, and *E. longicollis* the distinct, small, oval, raised eburneous spot lying close to the suture in front of the transverse fascia on each elytron. From *E. laevicauda* and *E. perplexus* it may be separated by the larger size and spined antennae; from *E. longicollis* by the shining elytral surface, somewhat oblique orientation of the main eburneous fasciae, and by the presence of elevated basal gibbositities. It is a pleasure to dedicate this species to our friend, Dr. E. Gorton Linsley, a pioneer in modern cerambycid taxonomy in North America.

***Euderces longicollis* (Linsley)**
(Figs. 4, 33)

Eplophorus longicollis Linsley, 1935:88; Chemsak, 1969:308. (TYPE LOCALITY: Bejucos, México, Mexico.)

Euderces longicollis Chemsak & Linsley, 1975:88.

REDESCRIPTION.— *Male*: Length 6–8.5 mm. Integument blackish, usually variably marked with reddish orange on parts of head and antennae, base of prothorax, mesosternum, elytral humeri, and femora; reddish markings sometimes increased to include metasternum and basal 1/2 of elytra, rarely altogether absent; elytra with two pairs of eburneous fasciae. Head with eyes rather small, lobes divided; antennae slightly exceeding apex of elytra, third and fourth segments longitudinally grooved, third segment about twice as long as fourth, armed at apex with a stout, sharp spine which is about 1/2 as long as fourth segment, apices of fourth and fifth segments with smaller spines. Pronotum 1 1/2 times as long as wide; sides feebly rounded to subparallel on apical 2/3, base somewhat impressed; disk with surface longitudinally carinulate-striate, basally subasperate, with a white pubescent fascia across base; entire surface clothed with

long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately sparse, erect, white pubescence; hind margins of mesepimera, meso- and metasternum clothed with dense, white pubescence. Scutellum rounded, moderately sparsely clothed with appressed white pubescence. Elytra slightly less than three times as long as width across humeri; sides slightly impressed at middle; apices sinuate-truncate and bidentate; each side of disk near base feebly gibbose; a small, short, eburneous mark present near the suture at basal 2/5 on each side, immediately followed by a longer, narrow, transverse, feebly arcuate, raised, eburneous fascia extending from lateral margin nearly to suture; discal surface with basal 2/3 densely

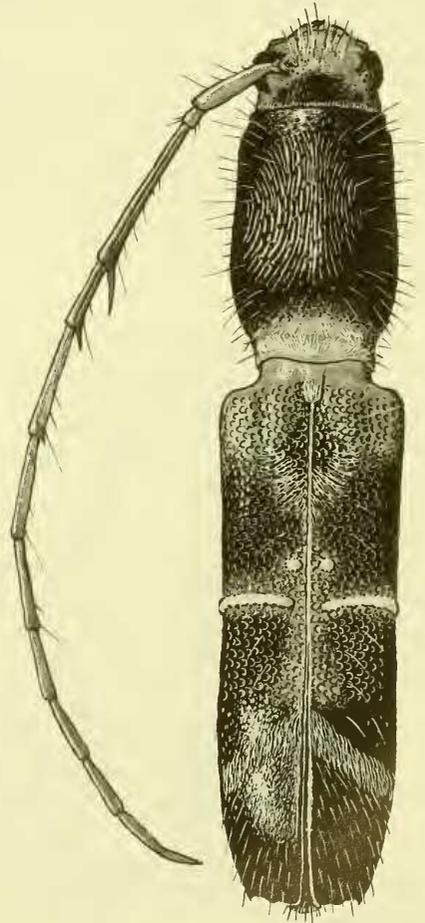


FIGURE 33. *Euderces longicollis* (Linsley), male.

cribrate-punctate with a patch of subrecumbent whitish hairs behind basal gibbosities, apical 1/3 sparsely punctate, alutaceous, with an inverted chevron of fine, appressed whitish pubescence at apical 1/4; entire disk sparsely clothed with long, pale, erect hairs. Abdomen with first sternite laterally marked with dense, white pubescence, remaining sternites very sparsely, finely pale pubescent; terminal sternite about as long as fourth, apex broadly rounded. Legs with femora moderately gradually clavate; surface smooth, shining.

Female: Similar to male. Length 5.5–8 mm. Antennae much shorter, reaching basal 1/3 of elytra; third segment feebly grooved. Prosternum lacking coarse punctures, pubescence less dense, subdepressed. Abdomen with terminal sternite slightly longer than fourth, apex rounded to subtruncate.

REMARKS. — The grooves of the third and fourth antennal segments are deeper in larger males. Specimens with entirely black integument (with eburneous markings) occur in coastal Jalisco. Flight occurs from May to July in southwestern Mexico (see Fig. 4).

***Euderces magnus* (Bates)**
(Fig. 34)

Apilocera magna Bates, 1885:305. (TYPE LOCALITY: Purula (Purulhá), Verapaz, Guatemala.)
Apilocera magna Aurivillius, 1912:420.
Eplophorus magnus Blackwelder, 1946:583.
Euderces magnus Chemsak & Linsley, 1975:88.

REDESCRIPTION. — *Male:* Length 12 mm. Integument blackish, legs and antennae dark brown, elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching about middle of elytra, third segment about twice as long as fourth, armed at apex with a long, feebly curved spine nearly as long as fourth segment, apex of fourth segment with a small, sharp spine, fifth segment with minute spicule, segments from fourth somewhat flattened and subserrate. Pronotum slightly more than 1 1/2 times as long as wide, sides moderately rounded, basal 1/6 impressed, apical 1/6 slightly impressed, apex slightly narrowed, with slight swellings on each side of disk at basal 1/3 and apical 1/3; disk with surface smooth, except for a very finely, densely punctate area across middle, which is interrupted

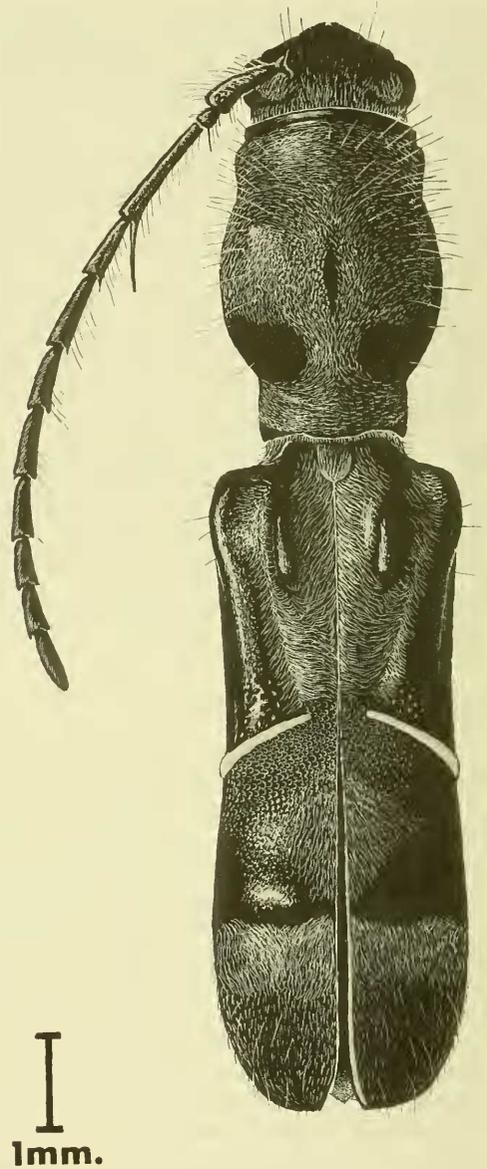


FIGURE 34. *Euderces magnus* (Bates), Holotype male. Scale = 1 mm.

by a median short, longitudinal, impunctate callus, clothed with fine, depressed, pale golden pubescence except on median callus and posterior swellings; entire surface sparsely clothed with long, erect hairs; prosternum with posterior 1/2 bearing moderately coarse punctures and pale golden pubescence; mesepimera and metasternum clothed with moderately dense, pale

golden, subrecumbent pubescence. Scutellum with apex broadly rounded, moderately sparsely pale golden pubescent. Elytra about 2 1/2 times as long as width across humeri; sides slightly impressed before middle; apices broadly subtruncate; each side near base strongly, vertically gibbose near suture; an oblique, raised, eburneous fascia present on each side at basal 2/5, surface depressed behind gibbosities, obliquely impressed at outside of basal gibbosities, and near suture under pubescent markings; surface shining, basal 2/5 sparsely punctate, with appressed golden pubescence surrounding basal gibbosities, median 1/5 densely cribrate-punctate obliquely across middle behind eburneous fasciae, apical 2/5 impunctate, with a well-defined, broad fascia of golden pubescence across apical 1/3, front margin of pubescent fascia whitish, areas behind cribrate-punctate median band and behind pubescent fascia bearing scattered, short, erect, golden hairs; entire disk sparsely clothed with long, erect, golden hairs. Abdomen shining, first sternite clothed with pale golden pubescence at sides, remaining sternites sparsely pubescent laterally; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, partially clothed with short, pale golden pubescence.

Female: Unknown.

REMARKS. — This large species is superficially similar to *E. boucardi* and *E. proximus*, but may be distinguished from both by the larger size, lack of distinct surface sculpturing on the pronotal disk, more flattened and subserrate antennal segments, more prominent elytral gibbosities, and additionally from *E. proximus* by the longer antennal spines. Only the holotype [BMNH] was seen in this study.

***Euderces nelsoni* Chemsak**
(Figs. 6, 35)

Euderces nelsoni Chemsak, 1969:315; Chemsak & Linsley, 1975:87. (TYPE LOCALITY: 5 miles N. Mazatlan, Sinaloa, Mexico.)

REDESCRIPTION. — *Male:* Length 5–6 mm. Integument reddish, posterior portion of elytra, abdomen, meso- and metatibiae often darker brown to blackish, elytra with a single pair of eburneous fasciae. Head with eyes divided, up-

per lobes very small; antennae reaching to about apical 1/3 of elytra, third segment about 1 1/2 times as long as scape, nearly twice as long as fourth, armed at apex with a sharp spine which is shorter than second segment, apex of fourth segment spinose, fifth segment dentate. Pronotum about 1 1/3 times as long as broad; sides rounded, somewhat impressed at base, less strongly narrowed at apex; discal surface longitudinally reticulate-striolate, moderately sparsely asperate in middle, sparsely clothed with short, appressed pale pubescence; entire surface with sparse, long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and sparse pale pubescence; lateral margins of mesepimera and sides of hind margin of metasternum pale pubescent. Scutellum small, rounded, surface sparsely pubescent. Elytra slightly more than twice as long as width across humeri; sides feebly impressed before middle, slightly wider before apex; apices broadly subtruncate to shallowly emarginate; each side near base with a fairly distinct, low gibbosity; a moderately wide, transverse, raised, eburneous fascia present on each side at about basal 1/3 from lateral margin to past middle of

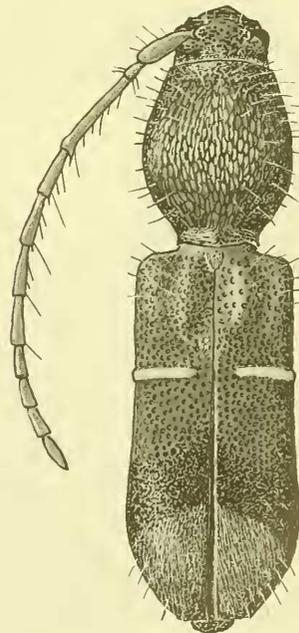


FIGURE 35. *Euderces nelsoni* Chemsak, male.

disk; discal surface with basal 1/4 densely punctate, slightly shining, becoming opaque and densely cribrate-punctate to apical 1/3, where surface becomes impunctate and moderately coarsely alutaceous to apex, apical 1/4 moderately densely clothed with fine, appressed, pale pubescence; entire disk clothed with long, erect, pale hairs. Abdomen shining, sparsely pubescent; terminal sternite about as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, sometimes with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 5–6 mm. Antennae slightly shorter, barely reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — *Euderces nelsoni* resembles *E. rubellus*, but differs by the presence of low basal elytral gibbositities, more coarsely sculptured and less pubescent pronotal surface, and somewhat larger size. Also, the elytral eburneous fasciae are moderately wide, distinctly raised, and rounded at their inner apices, unlike the narrower, apically acuminate fasciae of *E. rubellus*. Although many individuals from the area of the type locality are nearly all reddish, specimens from southern populations usually have the apical half of the elytra black. The species flies in July and August in western Mexico (see Fig. 6).

***Euderces noguerai*, new species**
(Fig. 36)

TYPES. — Holotype male [UNAM], allotype and paratypes (2 males, 2 females) from MEXICO, Quintana Roo, 10 km N Puerto Morelos, June 15–16, 1983 (E. Giesbert). Additional 37 paratypes from MEXICO as follows: 3 males, 2 females, Quintana Roo, X-Can Nuevo, June 2–17, 1977 (E. Welling); 1 male, Yucatan, Pisté, March 14, 1980 (Welling); 1 female, Yucatan, 2 km E Chichén Itz, "dry trop. seas. for.," July 19–20, 1983 (R. Anderson, W. Maddison); 2 males, 5 females, same locality, on blossoms of woody plant, May 25, 1984 (R. Tumbow, J. Wappes); 1 male, 7 females, same locality, May 28–29, 1992 (R. L. Penrose); 2 males, 3 females, Quintana Roo, 20 km N Carillo Puerto, June 12–14, 1983 (Wappes, Giesbert); 3 males, Quintana Roo, 17 km NW Felipe Carillo Puerto, June 18, 1990 (Tumbow, M. C. Thomas, J. Huether); 1 male, 1 female, Quintana Roo, 16 km N Felipe Carillo Puerto, June 2, 1992 (Penrose); 3 males, 1 female, Quintana Roo, 11 km N Felipe Carillo

Puerto, June 2, 1992 (Penrose); 1 female, Quintana Roo, 13 km NW Tulum, June 15, 1993 (Wappes). One additional male paratype from BELIZE, New Orleans, under bark of *Lignum vitae*, March 20, 1969 (A. D. Hanson, C. Whelchel). Paratypes are deposited with CNMN, EMEC, TAMU, EFGC, JEW, RHTC RLPC.

DESCRIPTION. — *Male*: Length 7.5–13.5 mm. Integument dark brown to blackish, with two pairs of elytral eburneous markings, elytra often with a faint metallic green tint and sometimes with margins pale at basal 1/2. Head with eyes moderately small, lobes divided; antennal

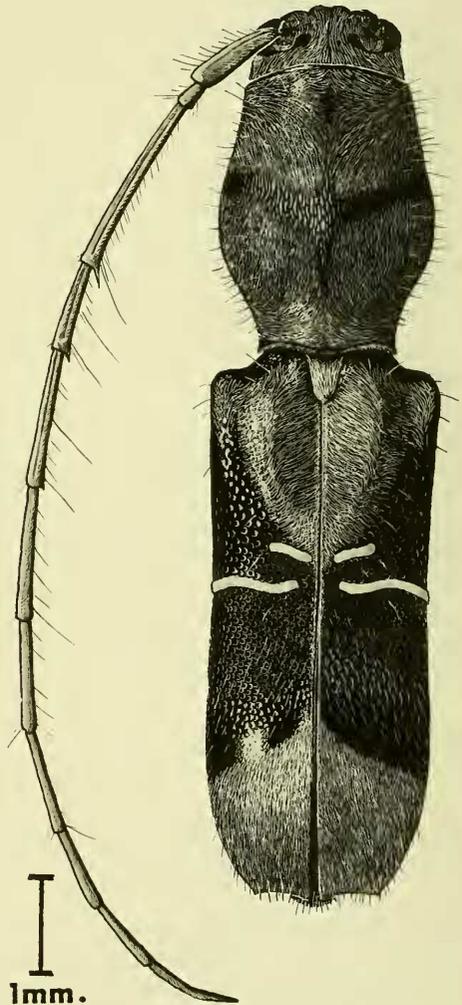


FIGURE 36. *Euderces noguerai*, new species, male.

tubercles small, acute; antennae exceeding apex of elytra by about two segments, third to fifth segments longitudinally grooved, third segment moderately stout, nearly twice as long as fourth, armed at apex with a short, sharp spine, apices of fourth and usually fifth segments with very small spines. Pronotum about 1 1/4 times as long as wide; sides rounded, widest slightly behind middle, narrowed toward base and apex; basal 1/6 somewhat impressed; disk with surface longitudinally rugose and striolate, moderately densely clothed with appressed golden pubescence except for a median, transverse, sinuate, glabrous fascia which branches back to base at middle; entire prothorax clothed with erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and moderately dense, erect and subdepressed, white pubescence; hind portion of prosternum, lateral 1/2 of mesepimera, hind margin of mesosternum, and most of metasternum and metepisterna clothed with dense, pale pubescence. Scutellum moderately large, apex narrowly rounded, surface densely clothed with appressed, pale golden pubescence. Elytra slightly less than 2 1/2 times as long as width across humeri, sides slightly impressed at middle; apices truncate and bidentate; disk feebly gibbose on each side near base, with two pairs of narrow, slightly sinuate, raised, eburneous fasciae present, the anterior pair just behind the gibbosities short, oblique, extending from middle of disk to near suture, posterior pair premedian, extending from lateral margin past middle of disk; surface with basal 1/3 shining, moderately densely punctate, with a patch of subrecumbent pale golden hairs around basal gibbosities, median 1/3 dull, densely cribrate-punctate, moderately sparsely clothed with fine, subdepressed golden pubescence, apical 1/3 shining, with an inverted chevron of fine, appressed pale golden pubescence, the front margin of which is distinct, the hind margin indistinct; entire disk sparsely clothed with erect hairs. Abdomen moderately densely clothed with fine, pale pubescence, which is somewhat more dense and pale at sides of first sternite; terminal sternite about as long as fourth, apex broadly rounded. Legs with femora gradually clavate, apically carinate on each face; surface shining, very sparsely punctate and with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 8–12 mm. Antennae shorter, slightly exceeding middle of

elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — *Euderces noguerai* appears to be related to *E. pulcher*, *E. longicollis*, and *E. bicinctus*. It is a pleasure to dedicate this species to Felipe A. Noguera M. of the UNAM Estación de Biología at Chamela, Jalisco, Mexico, for his interest in the Cerambycidae.

***Euderces obliquefasciatus*, new species**
(Fig. 37)

TYPE. — Holotype female [CNMN] from MEXICO, Guerrero, 5 mi. SW Filo de Caballo, 8000 ft., July 7, 1984 (J. B. Woolley).



FIGURE 37. *Euderces obliquefasciatus*, new species, Holotype female.

DESCRIPTION. — *Female:* Length 6 mm, form slender. Integument dark brown, head, pronotum, and elytral apices somewhat darker; elytra with two pair of eburneous markings. Head with eyes moderately prominent, lobes divided, upper lobe small; antennae slightly surpassing middle of elytra, third segment nearly 1 1/2 times as long as scape, nearly twice as long as fourth segment, segments unarmed and feebly expanded apically. Pronotum somewhat longer than broad; sides rounded, base narrowed and deeply impressed, apex moderately narrowed; discal surface shining, moderately, longitudinally rugose-striolate, very sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 moderately clothed with appressed, pale hairs; lateral margins of mesepimera and metasternum indistinctly pale pubescent. Scutellum with apex subtruncate, clothed with whitish pubescence. Elytra about 2 2/3 times as long as width across humeri, sides subparallel, slightly wider behind middle; apices rounded; each side near base very feebly tumid; a strongly oblique, raised, eburneous fascia present on each side from before basal 1/3 at margin to behind basal 1/3 between middle of disk and suture, and an additional short, transverse, raised, eburneous lineole present close to suture slightly before basal 1/4; surface of basal 1/4 somewhat shining, moderately densely punctate, median area densely cribrate-punctate from anterior eburneous markings to apical 2/5, remainder of elytra impunctate, alutaceous, with a distinct, slightly oblique fascia of short, fine, appressed, whitish pubescence before apical 1/4; entire disk sparsely clothed with long, erect hairs. Abdomen shining, sparsely clothed with long, erect hairs; first sternite moderately densely clothed with appressed, pale pubescence on each side of middle; terminal sternite as long as fourth, apex moderately rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, very sparsely clothed with long, erect, pale hairs and fine, indistinct, appressed shorter hairs.

Male: Unknown.

REMARKS. — This species differs from the similar *E. perplexa* by the strongly oblique posterior eburneous fasciae, and the pubescent patches of the first abdominal sternite. The species name refers to the oblique fasciae: *obliquus* = slanting (L.) + *fascia* = transverse band (L.).

***Euderces parallelus* LeConte**
(Figs. 3, 38)

Euderces parallelus LeConte, 1873:202; Leng, 1887:24, 44; Horn, 1894:339; Aurivillius, 1912:419; Linsley, 1942:57; Chemsak & Linsley, 1975:87; Hovore, 1988:15 (ref.). (TYPE LOCALITY: Lower California.)

REDESCRIPTION. — *Male:* Length 3–5 mm. Integument blackish to dark brown, mouthparts, antennae, middle of elytra narrowly surrounding the eburneous markings, femoral apices, tibial apices, and tarsi orange-brown; elytra with two pairs of eburneous markings. Head with eyes divided, upper lobe small; antennae reaching nearly to middle of elytra, scape slender, not much wider than remaining segments, third segment about 1 1/2 times as long as scape, nearly twice as long as fourth segment, segments unarmed and slightly swollen apically. Pronotum about as long as wide; sides broadly rounded, basal 1/6 narrowed and deeply impressed, apex somewhat narrowed; discal surface moderately shining, longitudinally striate, base asperate at middle, with sparse, appressed, pale pubescence across base, entire surface with scattered, long, erect, pale hairs; prosternum with posterior 2/3 coarsely punctured and pale pubescent; lateral margins of mesepimera and hind margin of metasternum densely whitish pubescent. Scutellum with apex narrowly rounded, surface indistinctly pale pubescent. Elytra slightly more than twice as long as width across humeri; sides slightly narrowed behind humeri, widest behind middle; apices rounded; a narrow, transverse, raised, eburneous fascia present from margin nearly to suture on each side at about basal 1/3, an additional shorter, more narrow, transverse, eburneous fascia present near suture on each side at basal 1/4 (often reduced and sometimes absent); discal surface with basal 3/5 densely cribrate-punctate except for moderately shining, alutaceous, nearly impunctate humeri, apical 2/5 impunctate, alutaceous, sometimes with an indistinct fascia of sparse, pale pubescence across apical 1/3; entire disk moderately sparsely clothed with long, erect hairs. Abdomen shining, sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora abruptly clavate; surface smooth, shining, very sparsely pubescent.



FIGURE 38. *Euderces parallelus* LeConte, male.

Female: Similar to male. Length 3–5 mm. Antennae slightly shorter, reaching about to basal 1/4 of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — Flight typically occurs through most of lowland Baja California del Sur, Mexico from July to December (see Fig. 3). The length of the anterior eburneous fasciae appears to be quite variable and is lacking entirely on a few specimens. These individuals, more abundant in the northern part of the range, are very similar in appearance to typical *E. cribripennis*. They may be distinguished from that species by the remaining eburneous fasciae closely approaching the suture, and by the more slender antennal scape, as well as the peninsular distribution.

***Euderces paraposticus*, new species**
(Figs. 2, 39)

TYPE. — Holotype male [FMNH] from COLOMBIA, Magdalena, Sierra de Perija, Socorpa Mission, 1350 m., August 7–9, 1968 (B. Malkin).

DESCRIPTION. — *Male*: Length 6.5 mm. Integument blackish, with mouthparts, genae, hind margin of prosternum, mesosternum, coxae and appendages orange-brown; elytra with a single pair of eburneous fasciae. Head with eyes rather small, lobes divided; antennae reaching about apical 1/3 of elytra, third segment nearly twice as long as fourth, armed at apex with a long, feebly curved spine about 2/3 as long as fourth segment, apex of fourth segment with a distinct, short spine. Pronotum slightly less than 1 1/2 times as long as wide; sides moderately rounded, basal 1/6 narrowed and impressed; disk with surface longitudinally rugose-striate and asperate, clothed with fine, short, golden pubescence at base and behind apex, entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 coarsely punctate and pale pubescent; lateral and hind margins of epimera, meso- and metasterna clothed with denser, pale pubescence. Scutellum rounded, moderately sparsely clothed with pale pubescence. Elytra about 2 1/4 times as long as width across humeri; sides slightly impressed before middle; apices narrowly truncate, outer angles dentate; each side near base moderately strongly gibbous, apices of gibbosities asperate; a narrow, transverse, raised, eburneous fascia present on each side at basal 2/5 from lateral margin to about middle of disk; discal surface with extreme base shining, moderately sparsely punctate, area of basal gibbosities more densely punctate, with fine, appressed pale pubescence around and behind gibbosities, median 1/5 densely cribrate-punctate, apical 2/5 shining, impunctate, apical 1/4 bearing a wide fascia of appressed pale pubescence; entire disk sparsely clothed with long, erect hairs. Abdomen shining, very sparsely punctate, sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Unknown.

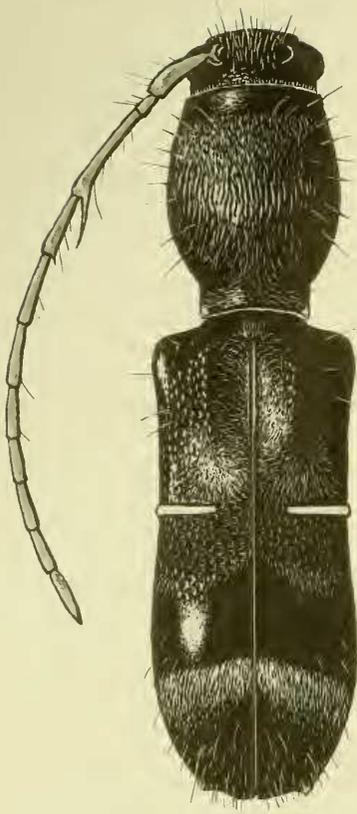


FIGURE 39. *Euderces paraposticus*, new species, Holotype male.

REMARKS. — This species, described from a unique specimen, is close to *E. posticus* geographically and in structure, but may be separated from that species by the somewhat shorter spine of the third antennal segment, the wider, shining, impunctate fascia between the median cribrate-punctate area and the preapical pubescent fascia, and by the contrasting color of the appendages. The specific name refers to the similarity to *E. posticus* (Pascoe): *par* = like (L.).

***Euderces perplexus*, new species**
(Fig. 40)

TYPES. — Holotype male [EMEC], allotype and 2 paratypes (1 male, 1 female) from MEXICO, Oaxaca, 38 km SW Oaxaca, Sierra de Zempoaltepetl, 2 km S Diaz Ordaz, 2075 m, July 4, 1989 (Barchet). Additional 16 paratypes from MEXICO as follows: 1 male, Guerrero, 23 km S Iguala, July 19, 1984 (J. Cope); 1

female, 3 km W Chilpancingo, July 20–27, 1987 (Cope); 1 male, Guerrero, 5.4 mi. SW La Laguna, July 14, 1985 (Jones, Schaffner); 1 male, 2 females, 15 mi. W Chichihualco, 5000 ft., July 15, 1984 (J. B. Woolley & Carroll, Schaffner, Friedlander); 1 female, 20.7 km SW Xochipala, 2000 m, “oak pastureland,” July 17, 1992 (R. S. Anderson); 1 male, 1 female, Oaxaca, Hwy #131 70 km S Oaxaca, Rio de la Y, 20 km W of jct., 2150 m, June 17, 1979 (H. & A. Howden); 1 female, Oaxaca, 10 mi. SE Huajuapán de León, June 27, 1965 (Burke, Meyer, Schaffner); 1 female, Oaxaca, Rt. #131 15 mi. S Sola de Vega, 6000 ft., May 30, 1971 (H. F. Howden); 1 female, Oaxaca, 7 km NNW Diaz Ordaz, 2200 m, July 11, 1992 (C. L. Bellamy); 1 female, same locality, July 17, 1992 (G. H. Nelson & D. S. Verity); 1 female, Oaxaca, 3.5 mi. N Diaz Ordaz, 6400 ft., July 9–10, 1994 (E. Giesbert); 1 female, Oaxaca, 6 mi. NE Mitla, July 20, 1985 (Jones, Schaffner); 1 female, Morelos, 9 mi. S Juchiltepec, June 29, 1982 (M. A. Ivie). Paratypes are deposited with EMEC, CNMN, TAMU, MAIC, EFGC, JSCC, HAHC, JEB, JEW.

DESCRIPTION. — *Male*: Length 4–5 mm, form moderately slender. Integument blackish to dark brown, appendages usually slightly lighter brown; elytra with two pair of eburneous markings. Head with eyes moderately prominent, lobes divided, upper lobe small; antennae reaching to about middle of elytra, third segment slightly longer than scape, about twice as long as fourth segment, segments unarmed and slightly swollen apically. Pronotum slightly longer than broad; sides rounded, basal 1/6 narrowed and deeply impressed, apex somewhat narrowed; discal surface somewhat shining, with moderately short, irregular striations, feebly asperate-striolate in middle, very sparsely clothed with long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and moderately sparse whitish pubescence; lateral margins of mesepimera and metasternum indistinctly pale pubescent. Scutellum with apex subtruncate, surface indistinctly pale pubescent. Elytra slightly more than 2 1/2 times as long as width across humeri; sides subparallel, slightly wider behind middle; apices rounded; each side near base feebly tumid; a narrow, transverse, raised, eburneous fascia present from margin to middle of disk on each side at about basal 2/5, an additional small, transverse, raised, eburneous lineole or oval spot present on each side near suture at basal 1/5; surface of basal 1/5 somewhat shining, moderately densely punctate, median area densely

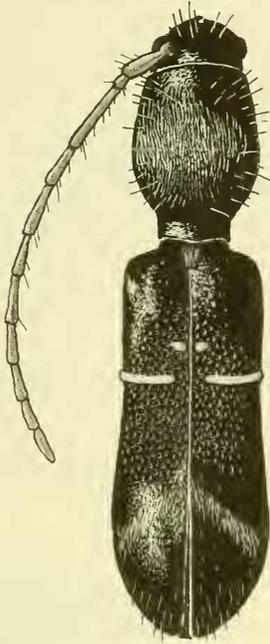


FIGURE 40. *Euderces perplexus*, new species, male.

cribrate-punctate from anterior eburneous markings to apical 2/5, remainder of elytra impunctate, alutaceous, with an indistinct, transverse fascia of short, fine, appressed, pale pubescence across apical 1/3; entire disk sparsely clothed with long, erect hairs. Abdomen shining, sparsely clothed with long, erect hairs; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora abruptly clavate; surface smooth, shining, very sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 4.5–6 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS.— This species, historically treated in the literature as *E. cribratus* Bates, may be separated from the closely related *E. laevicauda* by the usually blackish integument (a few specimens were seen with basally reddish elytra,

but in no case was the suture paler as in *laevicauda*), as well as by the shorter striations and feeble asperations of the pronotal disk, and the lack of pubescent markings on the first abdominal sternite. The species name refers to the previously unclear identity of this taxon: *perplexus* = puzzling (L.).

***Euderces picipes* (Fabricius)**
(Figs. 1, 5)

Callidium picipes Fabricius, 1787:157; 1792:338; Olivier, 1790:269; 1795:57. (TYPE LOCALITY: not given.)

Clytus picipes Fabricius, 1801:353; Laporte & Gory, 1835:107; Haldeman, 1847:41.

Euderces picipes LeConte, 1850:30; White, 1855:289; Provancher, 1877:604; Popenoe, 1877:33; Leng, 1887:24; Packard, 1890:354 (habits); Chittenden, 1894:98 (habits); Beutenmüller, 1896:77 (habits); Wickham, 1897:152; Felt, 1907:445; Poulton, 1908:225 (habits); Morris, 1909:412; Aurivillius, 1912:419; Nicolay, 1917:94; Craighead, 1923:64 (larva); Knull, 1946:226; Hoffmann, 1940:59; 1942:11; Fattig, 1947:27 (habits); Linsley, 1964:184; Chemsak & Linsley, 1975:87; MacRae, 1993:235 (habits); Turnbow & Hovore, 1979:223; Turnbow & Franklin, 1980:343.

Euderces picipes picipes Linsley, 1957:38; 1964:184; Turnbow & Franklin, 1980:343 (record); Gosling, 1984:71 (habits); Waters & Hyche, 1984:287.

Euderces picipes occidentalis Linsley, 1957:38; 1964:185; Chemsak & Linsley, 1975:87; MacRae, 1993:235 (habits); Lingafelter & Horner, 1993:176. (TYPE LOCALITY: Fedor, Texas) NEW SYNONYMY.

REDESCRIPTION.— *Male*: Length 5–9 mm. Integument blackish to dark red-brown, legs and antennae usually medium-brown, elytra with a single pair of eburneous fasciae (basal 1/2 to 2/3 of elytra sometimes red). Head with eyes rather small, lobes divided; antennae nearly reaching apices of elytra, third segment slightly less than twice as long as fourth, apex dentate, fourth segment with apex minutely dentate. Pronotum somewhat longer than broad; sides rounded, narrowed and impressed at base, less so at apex; discal surface shining, longitudinally striate and minutely asperate nearly to apex, entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with coarse punctures indistinct, limited to lateral surfaces, basal 1/2 moderately densely, finely, white pubescent; lat-

eral and hind areas of mesepimera and metasternum white pubescent. Scutellum rounded, indistinctly clothed with very fine, short, pale pubescence. Elytra slightly less than 2 1/2 times as long as width across humeri; sides slightly impressed before middle; apices rounded, sutural angle sometimes broadly, obtusely dentate; each side near base moderately strongly gibbose near suture; a narrow, somewhat oblique, raised, eburneous fascia present on each side at basal 2/5 from lateral margin to past middle of disk; discal surface with basal 2/3 dull, coarsely, densely cribrate-punctate, humeri shining, indistinctly punctate; apical 1/3 impunctate, alutaceous, often with an indistinct fascia of fine, pale pubescence across apical 1/4; entire disk clothed with long, erect, golden hairs. Abdomen shining; first sternite moderately densely pale pubescent, remaining sternites sparsely punctate and pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, sparsely clothed with long, pale hairs.

Female: Similar to male. Length 6–9 mm. Antennae slightly shorter, reaching apical 1/3 of elytra. Abdomen with terminal sternite slightly longer than fourth, apex narrowly rounded.

REMARKS. — Flight typically occurs in June and July in the eastern half of North America (see Fig. 5), but may take place as early as late April in the southern part of the range. Populations from Texas, Oklahoma, and Minnesota tend to have a more reddish integument, as observed by Linsley (1957), but red specimens have been seen from Florida, New Jersey and Mississippi as well. We do not believe subspecific status is warranted for this apparently widespread color variety.

Euderces picipes is one of the few species of *Euderces* having the sexual punctation of the male prosternum indistinct.

The known host plants are *Acer rubrum*, *Carya glabra*, *Castanea sativa*, *C. vesca*, *Celtis*, *Cercis canadensis*, *Cornus florida*, *Nyssa*, *Pyrus*, *Quercus stellata*, *Q. velutina*, *Robinia*, *Ulmus*.

***Euderces pini* (Olivier)**
(Figs. 5, 41)

Callidium pini Olivier, 1795:71. (TYPE LOCALITY: New York)

Euderces pini Fitch, 1857:417; LeConte, 1873:202; Hamilton, 1884:36; Leng, 1887:24, 44; Packard, 1890:700; Wickham, 1897:152; Aurivillius, 1912:419; Knull, 1946:226; Fattig, 1947:27 (records); Duffy, 1953:238; Linsley, 1964:182; Chemsak & Linsley, 1975:87; Turnbow & Hovore, 1979:223; Turnbow & Franklin, 1980:343 (record); Rice, 1981:461; Waters & Hyche, 1984:286; Rice, Turnbow & Hovore, 1985:20; Palmer, 1987:190; Wheeler & Longino, 1988:26; MacRae, 1993:236 (habits); Lingafelter & Horner, 1993:177.

Clytus piniadeus Fabricius, 1801:353; Laporte & Gory, 1835:109; Haldeman, 1847:41. (TYPE LOCALITY: Carolina)

Tillomorpha piniadea White, 1855:289; Lacordaire, 1869:91.

Clytus piniadeus var. *testaceipes* Haldeman, 1847:41. (TYPE LOCALITY: Carolina)

REDESCRIPTION. — *Male*: Length 6–9 mm. Integument pale reddish brown, apical 2/5 to 1/2

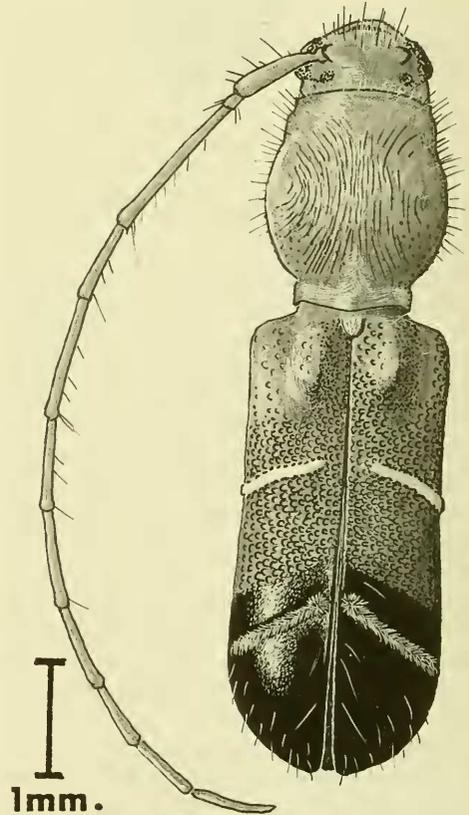


FIGURE 41. *Euderces pini* (Olivier), male.

of elytra and abdomen black (rarely all blackish with pale reddish brown antennae), elytra with a single pair of eburneous fasciae. Head with eyes rather small, lobes divided; antennae exceeding apices of elytra by two or three segments, third segment nearly twice as long as fourth, apex minutely dentate. Pronotum somewhat longer than broad, sides rounded, narrowed at base, less so at apex; disk deeply impressed across base, shallowly, widely impressed across apex, surface shining, finely, longitudinally striate and minutely asperate to apical impression, clothed with appressed whitish pubescence across base and on basal 1/3 in middle; entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and sparse, indistinct pubescence; lateral and hind areas of mesepimera and metasternum white pubescent. Scutellum rounded, moderately densely clothed with fine, pale pubescence. Elytra slightly less than 2 1/2 times as long as width across humeri, slightly wider behind middle; apices rounded or feebly subtruncate; each side near base moderately strongly, distinctly gibbose; a narrow, somewhat oblique, raised, eburneous fascia present on each side at basal 2/5 from lateral margin to past middle of disk; discal surface with basal 1/4 somewhat shining, coarsely, densely punctate, outer surface of gibbosities shining, impunctate; median 3/8 dull, densely cribrate-punctate, apical 3/8 shining, impunctate, with a narrow, distinct fascia of fine, pale pubescence across apical 1/3, surface beneath fascia slightly impressed; entire disk clothed with long, erect, golden hairs. Abdomen shining, sparsely punctate and pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of pale pubescence, sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 6–9 mm. Antennae shorter, reaching apical 1/3 of elytra. Abdomen with terminal sternite slightly longer than fourth, apex narrowly rounded.

REMARKS. — Occasional melanistic individuals have been seen, with pale reddish antennae. There does not appear to be any geographical pattern for this color form. Flight period is from March to May in the southeastern U. S. A. westward to Texas and Kansas (see Fig. 5).

The known host plants are *Carya illinoensis*, *Cornus florida*, *Maclura pomifera*, *Sapindus drummondi*, *Sophora secundifolia*, *Ulmus alata*.

***Euderces posticus* (Pascoe), new combination**
(Figs. 2, 42)

Apilocera postica Pascoe, 1866:295. (TYPE LOCALITY: Santa Marta, Colombia.)

Apelocera postica Aurivillius, 1912:420.

Eplophorus posticus Blackwelder, 1946:583.

REDESCRIPTION. — *Male*: Length 5–6.5 mm. Integument usually blackish to dark red-brown, sometimes with head and pronotum reddish; elytra with a single pair of eburneous fasciae. Head with eyes rather small, lobes divided; antennae exceeding middle of elytra, third segment about twice as long as fourth, armed at apex with a long, feebly sinuate, blunt spine which is about as long as fourth segment, apex of fourth segment

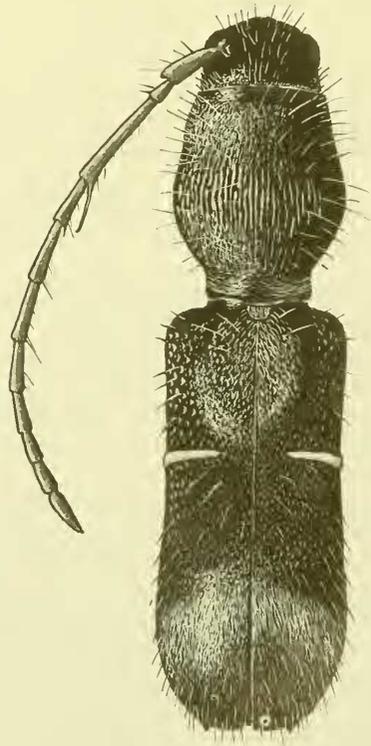


FIGURE 42. *Euderces posticus* (Pascoe), male.

with a distinct, short spine. Pronotum 1 1/4 times as long as wide, sides rounded, basal 1/6 strongly narrowed and impressed; disk with surface longitudinally striate and rugulose, apical 2/5 and base clothed with short, golden pubescence, entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately dense, subdepressed, white pubescence; lateral and hind margins of epimera, meso- and metasternum clothed with dense, white pubescence. Scutellum rounded, moderately sparsely clothed with appressed golden pubescence. Elytra slightly more than twice as long as width across humeri; sides slightly impressed before middle; apices narrowly truncate, marginal angles dentate; each side near base moderately strongly, arcuately gibbose, apices of gibbositities asperate; a narrow, transverse, raised, eburneous fascia present on each side at basal 2/5 from lateral margin to past middle of disk; discal surface with basal 1/3 coarsely, densely punctate, with moderately sparse, golden pubescence in area of basal gibbositities, median 1/3 densely cribrate-punctate, with indistinct golden pubescence, apical 1/3 somewhat alutaceous, impunctate, with apical 1/4 clothed with appressed pale golden pubescence; entire disk sparsely clothed with long, erect, golden hairs. Abdomen shining, very sparsely punctate, sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 5–6 mm. Antennae slightly shorter, barely reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — In Pascoe's type specimen and accompanying description the integumental color is given as brownish red, with the tibiae, tarsi, and terminal antennal segments darker. The basically brownish color, however, appears to be variable, and specimens have been seen which range from all dark brown, to dark brown with a reddish head and pronotum. Flight occurs from January to May from central and eastern Panama to northern Colombia (see Fig. 2).

Euderces postipallidus, new species
(Fig. 43)

TYPES. — Holotype male [HAHC] and allotype from MEXICO, Oaxaca, 15 mi. S Sola de Vega, 6000 ft., May 30, 1971 (H. F. Howden). Additional 38 paratypes from Oaxaca, MEXICO as follows: 2 females, Hwy. #131, 70 km S Oaxaca, Rio de la Y, km 20 W of jct., 2150 m., June 17, 1979 (H. & A. Howden); 1 male, 12.5 km SW Guelatao, 1900 m., oak scrub, July 27, 1992 (R. S. Anderson); 1 female, 12 km S Benito Juarez, 2100 m., July 1, 1989 (Barchet); 1 female, 8 mi. NE El Punto, July 18, 1985 (Jones, Schaffner); 2 males, Hwy. #175, 6.7 km N El Punto, 2100 m., June 29, 1989 (Barchet); 2 males, 1 female, 13–14 km E Mitla, 2100 m., August 5–8, 1986 (Howdens); 1 male, 6 mi. NE Mitla, July 20, 1985 (Jones, Schaffner); 4 males, 3 females, 7–8 mi. NE Mitla, 6200 ft., July 3–9, 1994 (E. Giesbert); 3 males, 1 female, 8 km NW Diaz Ordaz, 2400 m., June 15, 1979 (Howdens); 1 female, N of Hwy #190, 7 km N Diaz Ordaz, July 17, 1992 (G. H. Nelson, D. S. Verity); 1 male, 4 females, 3.5 mi. N Diaz Ordaz, 6400 ft., July 9–10, 1994 (Giesbert); 1 male, 1 female, El Cerezal, 36 km NE Oaxaca, 2300 m., June 12, 1979 (Howdens); 1 male, 3 females, 10.8 km N Jct. #175/#195, 1859m., "oak-Acacia woodland," June 19, 1987 (R. Anderson); 1 male, Sierra de Ixtlán, El Estudiante, 1800 m., June 29, 1989 (Barchet); 1 male, 3 km NW Sola de Vega on Rio Miahuatlan, 1400 m., July 7, 1989 (Barchet); 1 male, Zempoaltepetl, 2 km S Diaz Ordaz, 2075m., July 4, 1989 (Barchet); 1 female, 5.7 mi. NW Tetixtlahuaca, July 22, 1987 (P. W. Kovarik). Paratypes are deposited with EMEC, MAIC, CNMN, TAMU, HAHC, EFGC, JEBC, JEW C.

DESCRIPTION. — *Male*: Length 6–6.5 mm. Integument blackish, apical half of elytra gradually paler dull yellowish, elytra with a single pair of eburneous elytral fasciae. Head with eyes moderately prominent, lobes divided; antennae reaching nearly to elytral apices, third segment about twice as long as fourth, segments unarmed apically. Pronotum about 1 1/3 times as long as broad; sides moderately rounded, base impressed, apex somewhat narrowed; discal surface moderately finely, longitudinally reticulate, finely asperate, base and apex indistinctly, sparsely, pale golden pubescent; entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and moderately dense, subdepressed, pale pubescence; hind-lateral margins of mesepimera and hind margin of metasternum whitish pubescent. Scutellum with apex broadly



FIGURE 43. *Euderces postipallidus*, new species, male.

rounded, surface densely golden pubescent. Elytra about 2 1/2 times as long as width across humeri; sides subparallel, slightly wider behind middle; apices rounded; each side near base somewhat gibbose; a narrow, transverse, raised, often strongly arcuate eburneous fascia present from margin to middle of disk on each side at about basal 1/3; surface with basal 1/4 somewhat shining, moderately densely punctate, cribrate-punctate on gibbosities, with pale, subrecumbent pubescence surrounding basal gibbosities, premedian 1/3 of elytra densely cribrate-punctate around and mostly behind eburneous fasciae, remainder of elytra impunctate, finely alutaceous, with a fascia of fine, pale golden, appressed pubescence across apical 1/3, pubescence finer, sparser behind fascia; entire disk sparsely clothed with long, erect hairs. Ab-

domen shining; first sternite with a small, oblique, pale pubescent marking on each side, remaining sternites sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora smooth, moderately abruptly clavate, shining, with longitudinal bands of pale pubescence, sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 5.5–7.5 mm. Antennae slightly shorter, slightly exceeding middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — *Euderces postipallidus* shares the apically paler integumental coloration with the often sympatric *E. auricaudus*, but differs by the lack of antennal spines and the much lower elytral gibbosities. This species is very similar to *E. basimaculatus*, differing primarily by color. In *E. basimaculatus* the blackish integument of the body is marked with orange-brown on the elytral base and the pubescence at the pronotal base is coarser, more extensive, and whitish. In addition, this species usually has arcuate or sinuate eburneous fasciae, while these markings on *E. basimaculatus* tend to be more or less straight. The specific name refers to the elytral color pattern: *post* = behind (L.) + *pallidus* = pale (L.).

Euderces propinquus, new species (Fig. 44)

TYPES. — Holotype male [EMEC], allotype and 9 paratypes (5 males, 4 females) from MEXICO, Oaxaca, 7–8 mi. E Mitla, 6200 ft., July 3–9, 1994 (E. Giesbert). Four additional paratypes, all from Oaxaca, MEXICO, as follows: 1 female, 14 km NW Diaz Ordaz, 2600 m, June 15, 1979 (H. & A. Howden); 1 male, 1 female, 11.1 km NW Diaz Ordaz, 2400 m, July 4, 1989 (Barchet); 1 female, N of Hwy #190, 7 km N Diaz Ordaz, July 17, 1992 (G. H. Nelson, D. S. Verity). Paratypes are deposited with EMEC, CNMN, JIBC, HAHC, EFGC.

DESCRIPTION. — *Male*: Length 4.5–5 mm, form moderately slender. Integument dull orange-brown, front and vertex, prothorax except basal impression, apical 1/3 and along each side of disk to basal 1/3 of elytra, abdomen, and parts of legs infuscated with dark brown; elytra with a pair of slightly oblique eburneous markings preceded by (usually) a pair of small evanescent eburneous spots. Head with eyes moderate-sized,

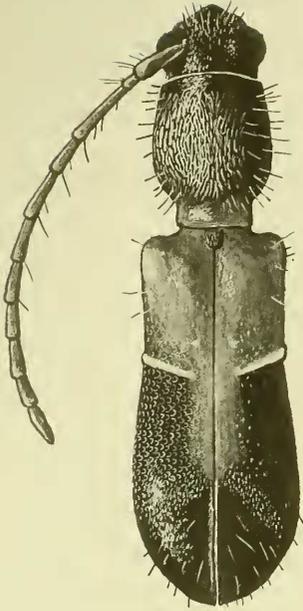


FIGURE 44. *Euderces propinquus*, new species, male.

lobes divided; antennae surpassing middle of elytra, third segment $1\frac{1}{2}$ times as long as scape, slightly longer than fourth segment, segments unarmed and feebly swollen apically. Pronotum about $1\frac{1}{4}$ times as long as broad; sides rounded, base narrowed and deeply impressed, apex somewhat narrowed, and slightly impressed; discal surface moderately finely striolate, asperate in median area; entire surface with sparse, long, erect, pale hairs; prosternum with posterior $\frac{2}{3}$ bearing coarse punctures; lateral margins of mesepimera and hind margin of metasternum indistinctly pale pubescent. Scutellum with apex subtruncate, surface pale pubescent. Elytra slightly more than $2\frac{1}{2}$ times as long as width across humeri; sides somewhat impressed slightly before middle, widest at apical $\frac{1}{3}$; apices narrowly rounded; each side near base feebly gibbose; a narrow, slightly raised, eburneous fascia present on each side from margin obliquely back to slightly beyond middle of disk at about basal $\frac{2}{5}$, a small, evanescent (sometimes absent) eburneous spot present on each side of

suture slightly anterior to fascia; surface with basal $\frac{3}{5}$ densely cribrate-punctate, apical $\frac{2}{5}$ alutaceous, with an indistinct, oblique fascia of short, fine, appressed, pale pubescence across apical $\frac{1}{3}$; entire disk sparsely clothed with long, pale, erect hairs. Abdomen shining, with very sparse, erect, pale hairs; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora abruptly clavate; surface smooth, shining, very sparsely clothed with long, erect, pale hairs.

Female: Similar to male. Length 4.5–5.5 mm. Antennae slightly shorter, reaching about to middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species appears to be closely related to *E. laevicauda*, *E. perplexus*, and *E. batesi*. *E. propinquus* may be separated from the similarly colored *E. batesi* by the presence of a second pair of small eburneous spots (although these are often evanescent, and sometimes absent), the broader elytral humeri, longer antennae, lack of apical carinae on the femora, and absence of pubescence on the first abdominal sternite. From *E. laevicauda*, *E. propinquus* may be distinguished by the shorter striations of the pronotal disk, lack of pubescent markings on the first sternite, and size and position of the smaller pair of eburneous spots. It may be separated from *E. perplexus* by the bicolored integument, broader elytral humeri, and reduction of the anterior eburneous spots. The species name refers to the taxonomic position of the species relative to *E. batesi*, *E. perplexus*, and *E. laevicauda*: *propinquus* = near (L.).

***Euderces proximus*, new species**
(Fig. 45)

TYPES. — Holotype female [EMEC] and 1 female paratype from GUATEMALA, Baja Verapaz, 19–24 km N Salamá, 4500 ft., May 25–31, 1989 (E. Giesbert) [EFGC].

DESCRIPTION. — *Female*: Length 8.5–10.5 mm. Integument blackish, antennae, bases and tips of femora, apices of tibiae, and tarsi dark orange-brown; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae slightly exceeding middle of elytra, third segment about twice as

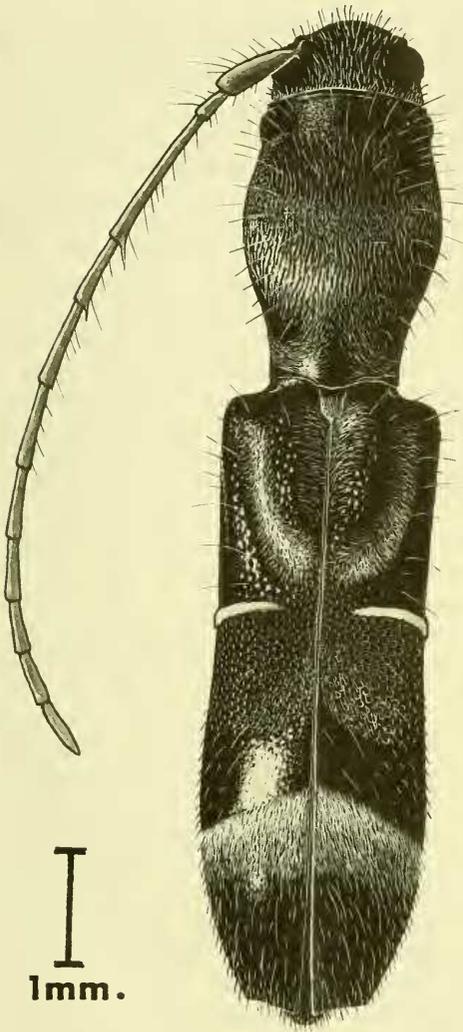


FIGURE 45. *Euderces proximus*, new species, female.

long as fourth, armed at apex with a slender spine less than 1/2 as long as fourth segment, apices of fourth and fifth segments with smaller, slender, sharp spines. Pronotum slightly more than 1 1/3 times as long as wide; sides moderately rounded and widest at middle; base and apex moderately, gradually impressed, feebly widened just before apex; disk with surface dull, longitudinally striate except at base and apex, with fine appressed golden pubescence forming wide, indistinct fasciae before middle and across base; entire surface sparsely clothed with long, erect, golden hairs;

prosternum with posterior 1/2 clothed with very fine, short, moderately dense, whitish pubescence; lateral margins of mesepimera and hind margin of metasternum with wide bands of dense, white pubescence. Scutellum small, parallel-sided, apex broadly rounded, very finely golden pubescent. Elytra nearly three times as long as width across humeri; sides very slightly impressed at middle; apices truncate, hind angles not rounded; each side at base with a distinct, elongate, slightly oblique, coarsely punctate gibbosity near suture; a narrow, transverse, raised, slightly oblique, eburneous fascia present on each side at basal 1/3 from margin to past middle of disk; surface shining, with basal 1/3 very sparsely punctate except on gibbosities, golden pubescence surrounding basal gibbosities; median 1/5 densely cribrate-punctate and pubescent across middle behind eburneous fasciae, with dense punctures extending up suture to gibbosities, remainder of surface nearly impunctate, with a well-defined, broad, arcuate fascia of golden pubescence across apical 1/3, front margin of pubescent fascia slightly paler, area behind fascia bearing scattered, short, erect, golden hairs; entire disk sparsely clothed with long, erect, golden hairs. Abdomen shining; first sternite clothed with white pubescence on hind lateral angles, remaining sternites more sparsely pubescent; terminal sternite about as long as fourth, apex rounded. Legs with femora moderately abruptly clavate, indistinctly carinate at apices; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Male: Unknown.

REMARKS. — This species is very similar to *E. boucardi*, differing only by the shorter spine of the third antennal segment and spined fifth segment, the somewhat more developed, punctate and less pubescent basal elytral gibbosities and the basal extension of the cribrate-punctate elytral area. The specific name refers to the similarity to *E. boucardi*: *proximus* = nearest (L.).

***Euderces pulchra* (Bates), new combination**
(Figs. 4, 12c, 46)

Cleozona pulchra Bates, 1874:223; 1880:60; Aurivillius, 1912:420; Chemsak, 1967:75; 1969:304.
(TYPE LOCALITY: Chontales, Nicaragua.)

Cleozona pulchra var. *rufipes* Bates, 1885:307; Aurivillius, 1912:420; Chemsak, 1967:75; Chem-

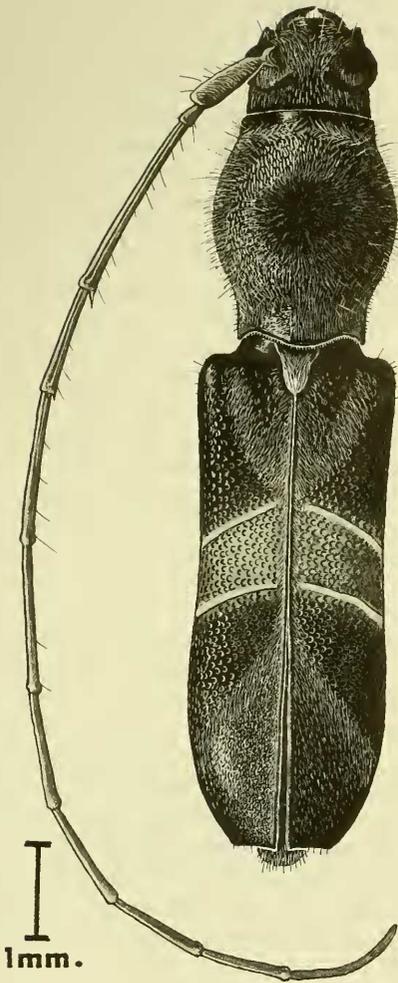


FIGURE 46. *Euderces pulcher* (Bates), male.

sak, Linsley & Mankins, 1980:32. (TYPE LOCALITY: Tehuantepec, Mexico.)
Cleozona rufipes; Linsley, 1935:89.

REDESCRIPTION. — *Male*: Length 8–15 mm. Integument black, usually marked with a wide, mid-elytral band of orange which encompasses four oblique, narrow eburneous fasciae; legs often entirely orange. Head with eyes moderately small, lobes divided; antennal tubercles small, acute; antennae exceeding apex of elytra by about three segments, third to fifth segments longitudinally grooved, third segment nearly twice as long as fourth, armed at apex with a short, sharp spine which is about 1/2 as long as

second segment, apices of fourth and fifth segments with smaller spines. Pronotum about 1 1/3 times as long as wide; sides rounded, widest at middle, base and apex narrowed, somewhat transversely impressed before base; disk with surface almost asperate-punctate, with an indistinct fascia of white appressed pubescence behind apex, entire surface moderately densely clothed with long and short, erect, pale hairs, with a broad oval of dense, erect, darker hairs at middle of disk; prosternum with posterior 2/3 bearing coarse punctures and moderately dense, erect, white pubescence; hind margins of prothorax, mesepimera, meso- and metasternum and metepisterna clothed with dense, white pubescence. Scutellum moderately large, apex narrowly rounded, surface densely clothed with appressed white pubescence. Elytra about 2 1/2 times as long as width across humeri; sides subparallel; apices sinuate-truncate, sometimes bidentate; disk on each side near base feebly gibbose, each side with a pair of narrow, oblique, raised, yellowish, eburneous fasciae extending from lateral margin nearly to suture, apices of fasciae separated across suture by about length of fourth antennal segment; surface with basal 3/4 densely cribrate-punctate, with a patch of subrecumbent whitish hairs around basal gibbositities, which continues narrowly on suture to connect with the apex of a narrow, inverted chevron of fine, appressed whitish pubescence, apical 1/4 coarsely alutaceous, with punctuation indistinct; disk sparsely clothed with pale, erect hairs. Abdomen with first sternite clothed laterally and on both sides of apex with dense, white pubescence, remaining sternites finely pale pubescent; terminal sternite about as long as fourth, apex broadly rounded. Legs with femora gradually clavate; surface shining, very sparsely punctate and pubescent.

Female: Similar to male. Length 8.5–14 mm. Antennae shorter, slightly exceeding middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded to subtruncate.

REMARKS. — The characters given by Bates (1874) to separate *Cleozona*, such as grooved antennal segments, gradually clavate metafemora, and tibial carinae, all appear among the many species of *Euderces* described subsequently. A few specimens have been seen in which there are irregular, incomplete, eburneous

lineoles between the paired fasciae. As in the related *E. longicollis*, specimens from coastal Jalisco are usually all black, but do not differ structurally from other populations with bicolored elytra. The flight period is June to August from western Mexico to Nicaragua (see Fig. 4).

***Euderces pusillus*, new species**
(Fig. 47)

TYPES. — Holotype male [NMNH], allotype and 8 paratypes (1 male, 7 females) from COSTA RICA, El Congo, January 20–February 5, 1934 (H. Paez). Three additional paratypes as follows: 1 female, GUATEMALA, Zacapa, 3 km N La Union, 3500 ft., April 14–20, 1990 (E. Giesbert); 1 female, GUATEMALA, Quetzaltenango, 5 mi. E Coatepeque, July 4, 1965 (Slobodchikoff & Raske); 1 male, MEXICO, Chiapas, 4 mi. SW Simojovel, March 18, 1953 (R. C. Bechtel & E. I. Schlinger). Paratypes are deposited with NMNH, EMEC, EFGC.

DESCRIPTION. — *Male:* Length 3.5–5 mm. Integument blackish to dark brown, antennae, coxae, femoral bases, and tarsi brown; elytra with a single pair of eburneous fasciae. Head with eyes divided, upper lobes very small; antennae slightly exceeding middle of elytra, third segment twice as long as fourth, armed at apex with a sharp spine which is about $2/3$ as long as fourth segment, apex of fourth segment with a short spine, fifth segment dentate. Pronotum with sides broadly rounded to apex, strongly narrowed and impressed across basal $1/6$; disk with surface finely alutaceous, moderately sparsely asperate, sparsely, indistinctly clothed with short, appressed, pale pubescence near base and apex; entire surface moderately clothed with long, erect, pale hairs; prosternum with posterior $1/2$ bearing scattered, coarse punctures and fine, subdepressed, pale pubescence at sides, middle glabrous; lateral margins of mesepimera and hind margins of meso- and metasternum clothed with pale pubescence. Scutellum small, rounded, surface clothed with fine, pale pubescence. Elytra slightly more than twice as long as width across humeri; sides somewhat impressed at basal $1/2$; apices broadly rounded; each side slightly gibbose near base, with an indistinct, oblique impression between humerus and gibbosity; a narrow, transverse, raised, eburneous fascia present on each side at basal $1/3$ from lateral margin to just past middle of disk; discal

surface with basal $1/4$ shining, base and humeri impunctate, moderately densely punctate behind base, premedian $1/4$ dull, densely cribrate-punctate before and behind eburneous fasciae, remainder of surface somewhat shining, alutaceous, sparsely punctate, with a usually indistinct chevron of appressed pale pubescence across apical $1/3$; entire surface very sparsely clothed with long, erect, pale hairs. Abdomen shining, sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, apically carinate; surface smooth, shining, with indistinct, longitudinal lineoles of short, pale pubescence.

Female: Similar to male. Length 4.25–5.25 mm. Antennae slightly shorter, barely reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species may be distinguished by its small size, dark integument, long antennal spines, asperate pronotum, and poorly developed elytral gibbosities. The specific name refers to the small size: *pusillus* = little (L.).

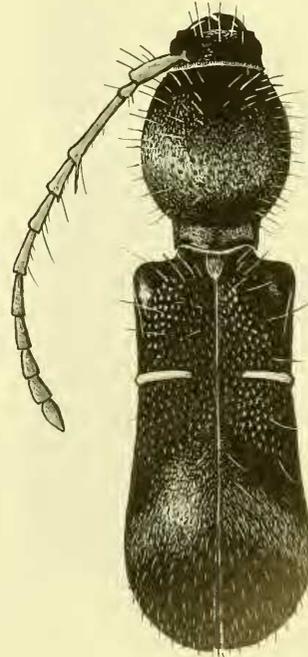


FIGURE 47. *Euderces pusillus*, new species, male.

***Euderces reichei* LeConte**
(Figs. 6, 48)

Euderces reichei LeConte, 1873:202; Leng, 1887:24, 44; Aurivillius, 1912:419; Knull, 1946:226; Fattig, 1947:27 (record); Linsley, 1964:182; Hoffmann, 1971:109; Chemsak & Linsley, 1975:87; MacRae, 1993:236 (habits). (TYPE LOCALITY: Texas.)

Euderces reichei reichei Linsley, 1964:182; Turnbow & Franklin, 1980:343 (record); Lingafelter & Horner, 1993:176.

Euderces exilis Casey, 1893:591; Leng & Hamilton, 1896:173; Linsley & Martin, 1933:191 (habits); Vogt, 1949:144 (habits); Manley & French, 1976:49; WARD et al., 1977:13 (hosts). (TYPE LOCALITY: Texas.) **NEW SYNONYMY.**

Apelocera exilis Aurivillius, 1912:420.

Euderces reichei exilis Linsley, 1964:182; Chemsak & Linsley, 1975:87; Hovore, Penrose & Neck, 1987: 307 (habits).

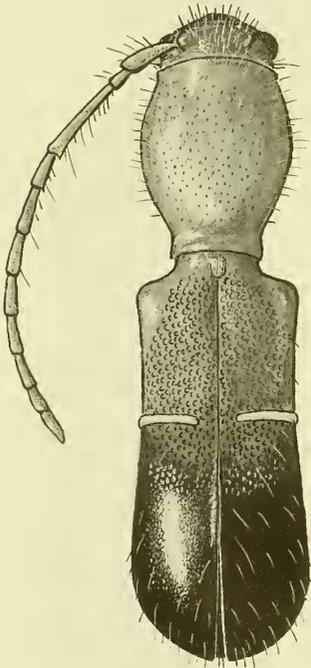


FIGURE 48. *Euderces reichei* LeConte, male.

REDESCRIPTION. — *Male:* Length 3.5–5 mm. Integument orange to light red-brown, with abdomen and about apical 1/2 of elytra blackish (in southern populations integument often entirely blackish except red-brown mouthparts, antennae, tarsi, and parts of legs). Head with eyes rather small, lobes divided; antennae exceeding middle of elytra, third segment about 2 1/3 times as long as fourth, apex dentate or with a fine, short spine, fourth segment with apex minutely dentate or spiculate. Pronotum about 1 1/3 times as long as broad; sides rounded, strongly impressed at base, slightly narrowed at apex; discal surface shining near apex, moderately sparsely covered with distinct, small asperities except near base and apex, entire surface clothed with long, erect, pale hairs; prosternum with basal 1/2 moderately distinctly punctate, indistinctly, finely, pale pubescent; lateral and hind areas of mesepimera and metasternum clothed with white pubescence. Scutellum small, slightly elongate, clothed with pale pubescence. Elytra slightly more than twice as long as width across humeri; sides slightly impressed before middle, widest before apex; apices jointly rounded; a narrow, transverse, raised, eburneous fascia present on each side at basal 1/3 from lateral margin nearly to suture; disk feebly gibbose near base on each side of suture; surface with extreme base, humeri, and apical 1/2 smooth, shining, or somewhat alutaceous, discal area surrounding eburneous fasciae from just behind base to middle opaque, coarsely, densely cribrate-punctate; entire disk clothed with long, erect, pale hairs. Abdomen shining, sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, with short, indistinct apical carinae; surface smooth, shining, sparsely clothed with long, pale hairs.

Female: Similar to male. Length 3.5–5 mm. Antennae slightly shorter, reaching basal 1/3 of elytra. Abdomen with terminal sternite slightly longer than fourth, apex narrowly rounded.

REMARKS. — This species may be distinguished by the small size, finely asperate pronotum, lack of elytral gibbosities and preapical pubescent fascia, and feebly armed antennal segments. This latter character, as well as the integumental color, is somewhat variable. The flight period is from March to July.

Euderces reichei, with an unusually wide range from Ohio, Indiana, and southern Illinois, southeast to Florida and west to Texas, through San Luis Potosí to Veracruz, Mexico (see Fig. 6), has several character states which appear to intergrade clinally. Northern and eastern U. S. populations differ slightly by the dentate apices of the third and fourth antennal segments, and by the smooth, shining integument of the body. In Texas and south into Mexico, the antennae have fine, short spines and somewhat more alutaceous integument. Individuals seen from San Luis Potosí and Veracruz, Mexico differ by an increase in melanism: the integument in this part of the range is often all black and only feebly alutaceous.

Euderces exilis Casey, which has been regarded as a subspecies by Linsley (1964), differs from *E. reichei* only by the tendency toward the somewhat more developed antennal spines. The two are sympatric in Texas (Bexar Co.).

Recorded host plants are *Acacia farnesiana*, *A. tortuosa*, *Celtis*, *Citrus*, *Condalia obovata*, *Cornus florida*, *Diospyrus texana*, *Prosopis glandulosa*, *Salix*, *Sapindus drummondii*, *Zanthoxylum fagara*.

***Euderces reticulatus* (Bates)**
(Fig. 49)

Apilocera reticulata Bates, 1885:306. (TYPE LOCALITY: San Joaquin, Guatemala.)
Apelocera reticulata Aurivillius, 1912:420.
Eplophorus reticulatus Blackwelder, 1946:583.
Euderces reticulatus Chemsak & Linsley, 1975:88.

MATERIAL EXAMINED. — MEXICO: Chiapas, 21 km N Ocozocoautla, August 24, 1982 (Clark & Cave) [EMEC]; 1 female, Chiapas, 2 mi. S Simojovel, June 9, 1969 (J. M. Campbell); 1 male, Chiapas, 11 km S Bochil, September 29–30, 1989 (F. Hovore) [FTHC]; 1 female, Veracruz, UNAM Est. Biol. Las Tuxtlas, April 21–27, 1990 (Hovore) [FTHC].

REDESCRIPTION. — *Male*: Length 5.5 mm. Integument blackish or reddish brown, abdomen and apical 1/3 of elytra usually somewhat infuscated; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided, upper lobes very small; antennae reaching nearly to middle of elytra, third segment nearly three times as long as fourth, armed at apex with a long, blunt spine which is subequal

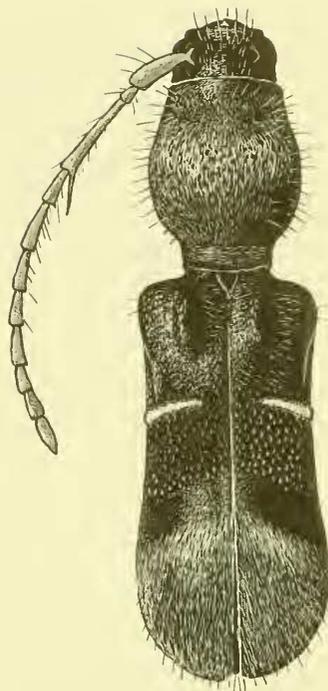


FIGURE 49. *Euderces reticulatus* (Bates), male.

in length to the fourth segment, apex of fourth segment unarmed. Pronotum about 1 1/4 times as long as wide; sides rounded, basal 1/4 strongly impressed; disk with surface moderately finely, longitudinally rugulose and asperate, finely, indistinctly pubescent at base and apex; entire surface clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing punctures and moderately dense, subdepressed, white pubescence; lateral and hind margins of prosternum and epimera, mesocoxae and posterior 1/2 of metasternum clothed with dense, white pubescence. Scutellum apically subtruncate, impunctate, glabrous. Elytra slightly less than 2 1/2 times as long as width across humeri; sides feebly impressed before middle; apices rounded; each side near base with a strong, highly elevated gibbosity which is moderately coarsely scabrous-punctate at its apex; a narrow, transverse, raised, eburneous fascia present on each side at basal 2/5 from near lateral margin to past middle of disk; discal surface with basal 1/3 somewhat shining, obsoletely punctate, alutaceous, moderately sparsely, indistinctly clothed with subde-

pressed, pale pubescence, median 1/4 densely cribrate-punctate before and behind eburneous fasciae, remainder of surface to apex impunctate, somewhat alutaceous, apical 1/3 moderately clothed with fine, pale pubescence which is slightly denser anteriorly; entire disk clothed with long, erect, pale hairs. Abdomen shining, very sparsely punctate, nearly glabrous; terminal sternite slightly shorter than fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, surface smooth, shining, with short longitudinal bands of pale pubescence.

Female: Similar to male. Length 5–6 mm. Antennae slightly shorter, reaching basal 1/3 of elytra. Prosternum lacking distinct punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — Bates (1885) described this species as having the pronotal surface reticulate. Examination of the type and a number of more recently collected specimens has shown this to be misleading. The pronotal disk is asperate and moderately finely, longitudinally rugulose, and the reticulation is unclear. This species may be separated from the similar *E. sculpticollis* by its smaller size, longer, blunt spine of the third antennal segment, and slightly more widely separated inner ends of the eburneous fasciae. The body color is sometimes reddish as in the type, but large series with piceous integument have also been seen. The appendages are usually reddish brown in both color forms. Flight occurs from April to October from southern Mexico (southern Veracruz to Chiapas) to Guatemala and Belize.

***Euderces rubellus* (Bates)**

(Fig. 50)

Apilocera rubella Bates, 1885:307. (TYPE LOCALITY: Volcan de Atitlan, Guatemala.)

Apelocera rubella Aurivillius, 1912:420.

Eplophorus rubellus Blackwelder, 1946:583.

Euderces rubellus Chemsak & Linsley, 1975:88.

REDESCRIPTION. — *Male*: Length 4 mm. Integument reddish, posterior portion of elytra, abdomen, and legs brown, elytra with a single pair of eburneous fasciae. Head with eyes divided, upper lobes very small; antennae reaching to about apical 1/3 of elytra, third segment slightly more than 1 1/2 times as long as scape,

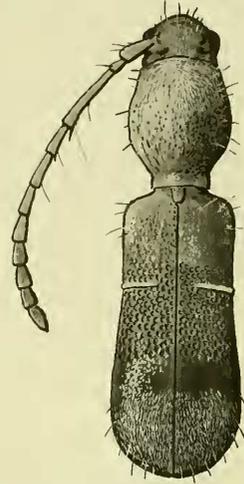


FIGURE 50. *Euderces rubellus* (Bates), Holotype male.

slightly more than twice as long as fourth, armed at apex with a sharp spine which is subequal to second segment, apex of fourth segment minutely spinose. Pronotum about 1 1/3 times as long as broad; sides rounded, somewhat impressed at base, less strongly narrowed at apex; discal surface moderately finely, indistinctly asperate and rugulose, clothed on apical 1/4 and at base with fine, short, appressed pale pubescence; entire surface with sparse long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and sparse pale pubescence; lateral margins of mesepimera and sides of hind margin of metasternum pale pubescent. Scutellum small, rounded, clothed with pale pubescence. Elytra slightly more than twice as long as width across humeri; sides slightly impressed before middle, somewhat wider before apex; apices broadly rounded; each side near base with gibbosity only very feebly indicated; a narrow, transverse, raised, acuminate, eburneous fascia present on each side at about basal 1/3 from lateral margin to about middle of disk; discal surface with basal 3/5 densely punctate, slightly shining near base, becoming opaque and cribrate-punctate in middle, apical 2/5 indistinctly punctate and alutaceous, apical 1/3 moderately clothed with fine, appressed, pale golden pubescence; entire disk clothed with long, erect, pale hairs. Abdomen shining, sparsely pubescent; terminal sternite about as long as fourth, apex broadly rounded.

Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Not seen.

REMARKS. — Only the holotype [BMNH] was examined in this study. *Euderces nelsoni* is very similar in form and color, differing by the presence of low gibbositities on the elytral humeri, more strongly developed eburneous fasciae, differences in sculpture and pubescence of the pronotum, and apparently somewhat larger size.

***Euderces sculpticollis* (Bates)**
(Fig. 51)

Apilocera sculpticollis Bates, 1885:306; Chemsak, 1967:74 (lectotype). (TYPE LOCALITY: Cerro Zunil, Guatemala.)

Apelocera sculpticollis Aurivillius, 1912:420.

Eplophorus sculpticollis Blackwelder, 1946:583; Chemsak, 1967:74.

Euderces sculpticollis Chemsak & Linsley, 1975:88.

MATERIAL EXAMINED. — One male, one female (type specimens), GUATEMALA, El Zumbador, 2500 ft. (Champion) [BMNH] (This is a location in San Marcos province, 19 km NW of Coatepeque).

REDESCRIPTION. — *Male*: Length 4.5 mm. Integument blackish to dark reddish brown; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae reaching about middle of elytra, third segment slightly less than 2 1/2 times as long as fourth, armed at apex with a moderately long, acute spine which is slightly more than 1/2 as long as fourth segment, apex of fourth segment with a distinct, short spine. Pronotum about 1 2/5 as long as wide; sides rounded, basal 1/4 widely impressed; disk with surface longitudinally striolate and rugulose, with an indistinct, wide fascia of moderately dense, appressed, golden pubescence across apical 1/5, sparse, appressed golden pubescence at middle and more densely golden pubescent near base; entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately dense, subdepressed, pale pubescence; lateral and hind margins of epimera, mesocoxae and hind margin of metasternum clothed with dense, pale pubescence. Scutellum rounded, impunctate, finely pale pubescent. Elytra about 2 1/2 times as long as width



FIGURE 51. *Euderces sculpticollis* (Bates), Holotype male.

across humeri; sides slightly impressed before middle; apices rounded; each side near base with a strong, moderately elevated gibbosity which is asperate-punctate at its apex; a narrow, transverse, raised, eburneous fascia present on each just behind basal 1/3 from lateral margin to very near suture; discal surface with basal 1/3 shining, with moderately dense punctures and moderately dense, fine, pale pubescence surrounding gibbositities, a moderately wide fascia of opaque cribrate-punctures present behind eburneous fasciae; apical 1/2 impunctate, somewhat alutaceous; apical 1/3 clothed with appressed pale golden pubescence which is denser anteriorly; entire disk sparsely clothed with long, erect, golden hairs. Abdomen shining, very sparsely punctate, first segment with a distinct, oblique marking of dense, pale pubescence, remaining segments sparsely pubescent laterally; terminal sternite slightly shorter than fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 5.5 mm. Antennae slightly shorter, reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — Only the lectotype and one other specimen of this species were examined. In the female, the integumental color is reddish brown. The male is piceous.

***Euderces spinicornis* (Chevrolat)**
(Figs. 4, 52)

- Chytus spinicornis* Chevrolat, 1835, fasc. 4, no. 7;
Thomson, 1860:229. (TYPE LOCALITY: Mexico)
Eplophorus spinicollis Chevrolat, 1861:248 (error).
Apelocera spinicornis Chevrolat, 1862:62.
Apilocera spinicornis Chevrolat, 1862:535; Bates,
1880:60; 1885:305.
Eplophorus spinicornis Blackwelder, 1946:583;
Chemsak, 1969:309.
Euderces spinicornis Chemsak & Linsley, 1975:88.
Chytus elegans Laporte & Gory, 1835, pl. 20, fig. 129.
(TYPE LOCALITY: not given.)

REDESCRIPTION. — *Male*: Length 5–6 mm. Integument dull orange, prothorax except base and apex, a wide, strongly sinuous band (sometimes interrupted) across humeri behind scutellum across basal gibbosities and extending down suture to area of eburneous fasciae, apical 2/5 of elytra, base of metasternum, and abdomen black; hind femoral club infuscated with dark brown; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae short, reaching middle of elytra, third segment more than twice as long as fourth, armed at apex with a long, feebly sinuate, blunt spine which is slightly longer than fourth segment, apex of fourth segment with a short spine. Pronotum with sides rounded; basal 1/6 impressed and narrowed; disk with surface dull, longitudinally rugulose; base and apex with fine, pale, recumbent pubescence; entire surface sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing coarse punctures and moderately dense white pubescence; hind margins of mesepimera and metasternum with distinct fasciae of dense, silvery-white pubescence. Scutellum subtriangular, apex narrowly rounded, pubescence sparse. Elytra more than twice as long as width across humeri; sides slightly impressed at basal 1/2; apices broadly rounded; disk with a well-developed, subvertical gibbosity on each side near base, apices of gibbosities punctate; a narrow, transverse, raised, eburneous fascia present on each side slightly before middle, narrowed and subacuminate toward suture; sur-

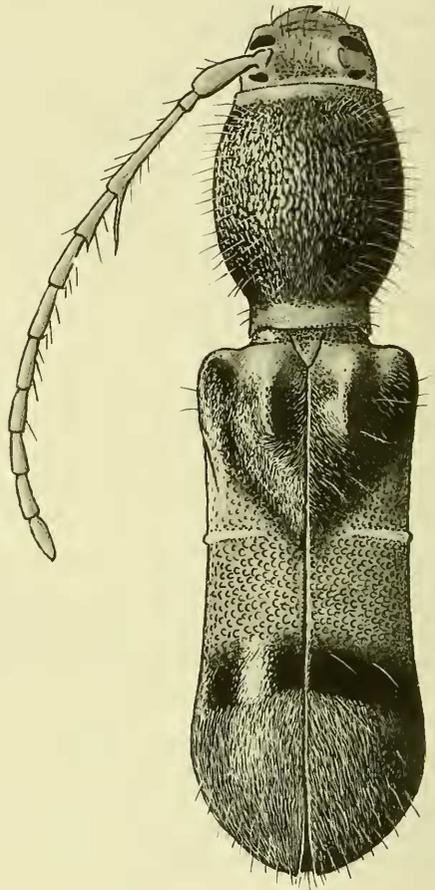


FIGURE 52. *Euderces spinicornis* (Chevrolat), male.

face shining, with a dense, cribrate-punctate area across middle 1/3, mostly behind the eburneous fasciae, basal 1/3 more sparsely punctate, apical 1/3 impunctate, alutaceous; recumbent pale pubescence present on area surrounding basal gibbosities and behind a narrow black band as a well-defined patch covering apical 1/4; entire disk sparsely clothed with long, erect, pale hairs. Abdomen shining, first sternite nearly glabrous, remaining sternites moderately pale pubescent; terminal sternite about as long as fourth, apex very broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male, with antennae slightly shorter. Length 5–6 mm. Prothorax lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex somewhat more narrowly rounded.

REMARKS. — This species is structurally similar to *E. hoegei*, but differs consistently by its more complex and contrasting reddish and blackish integumental pattern. Flight occurs from May to August in eastern Mexico, Guatemala and Honduras (see Fig. 4).

***Euderces succinus*, new species**
(Fig. 53)

TYPE. — Holotype male [EMEC] from GUATEMALA, Baja Verapaz, 6–9 km E Purulhá, approx. 5000 ft., April 15–24, 1990 (E. Giesbert).

DESCRIPTION. — *Male*: Length 5 mm. Integument yellow-brown; head, pronotum and scutellum light orange-brown; an indistinct area immediately behind a single pair of elytral eburneous fasciae, tibiae and outer antennal segments brown. Head with eyes moderately small, lobes divided; antennae reaching apical 1/4 of elytra, third segment 2 1/2 times as long as fourth, armed at apex with a long, blunt spine which is slightly longer than fourth segment, apex of fourth segment acutely dentate. Pronotum slightly longer than wide; sides widely rounded at middle, impressed and narrowed at base, less so at apex; disk somewhat flattened, lateral margins abrupt, surface moderately coarsely, longitudinally rugulose-striate between basal and apical impressions; entire surface sparsely clothed with long, erect, pale brown hairs; prothorax with posterior 1/2 bearing indistinct punctures and pale pubescence; hind lateral areas of mesepimera and metasternum with indistinct, large spots of dense, pale pubescence. Scutellum shining, subtriangular, apex narrowly rounded. Elytra slightly less than 2 1/2 times as long as width across humeri; sides feebly impressed before middle; apices broadly rounded; disk with a long, low, arcuate gibbosity on each side near scutellum; a raised, eburneous fascia present on each side slightly before middle from near margin forward to near suture; surface shining, basal 1/2 sparsely punctate, punctures slightly denser immediately behind eburneous fasciae, apical 1/2 impunctate, with a narrow, distinct fascia of

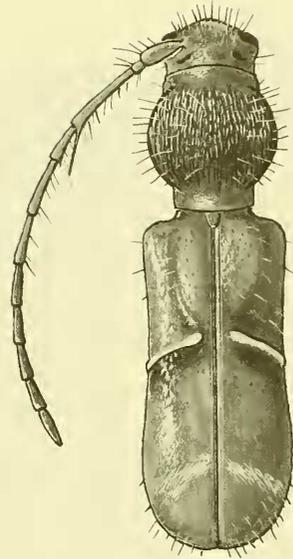


FIGURE 53. *Euderces succinus*, new species, Holotype male.

white hairs across apical 1/4; entire disk sparsely clothed with long, erect, pale brown hairs. Abdomen shining, nearly glabrous, with very sparse, pale, erect, short hairs; terminal sternite about as long as fourth, apex very broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining.

Female: Unknown.

REMARKS. — This species, known only from the type, may be easily separated by the yellow-brown and orange-brown integument, the long spine of the third antennal segment, and by the lack of cribrate-punctate areas of the elytra. The specific name describes the integumental color: *succinum* = amber (L.).

***Euderces tibialis*, new species**
(Figs. 12d, 54)

TYPES. — Holotype male [EMEC], allotype and 3 paratypes (2 males, 1 female) from MEXICO, Veracruz, E slope of Volcán San Martín Tuxtla, 2200 ft., running on recently dead "Bejuco" trunk and branches, July 5, 1994 (E. Giesbert). Five additional paratypes from MEXICO as follows: 1 male, Veracruz, UNAM Los Tuxtlas Biological Station, April 21–27, 1990 (F. T. Hovore); 2 males, 2 females, Chiapas, 4 mi. S Palenque, 200 ft., "tropical lowland forest," July 25–30, 1983 (R. Anderson). One female paratype from GUATEMALA, Petén, Tikal (at light

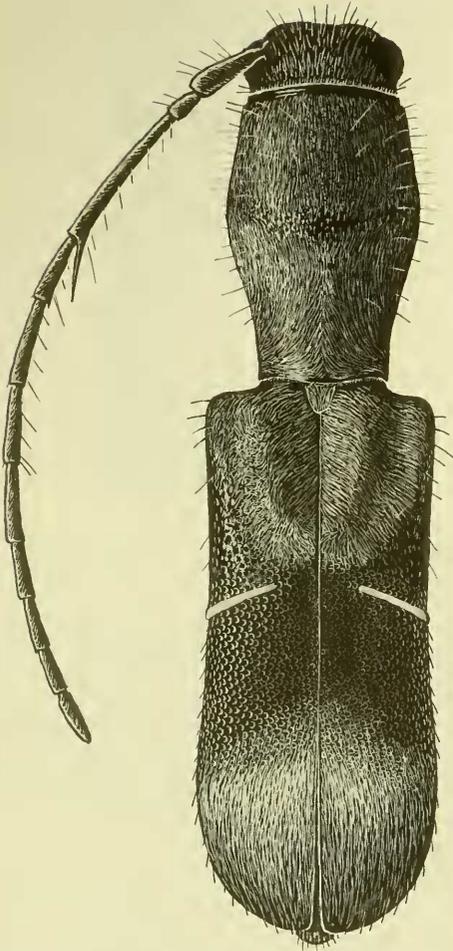


FIGURE 54. *Euderces tibialis*, new species, male.

at camp), March 14, 1956 (I. J. Cantrall). Paratypes are deposited with CNMN, TAMU, EFGC, FTCH.

DESCRIPTION. — *Male:* Length 7.5–9.25 mm. Integument blackish; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae slightly exceeding middle of elytra, third segment more than twice as long as fourth, armed at apex with a long, sharp spine which is nearly as long as fourth segment, apex of fourth segment with a minute tooth or spine. Pronotum somewhat elongate, more than 1 1/2 times as long as broad; sides slightly rounded, gradually narrowed to base; disk with surface longitudinally rugulose and

asperate, moderately densely clothed with short, appressed, golden pubescence with sparsely scattered minute asperations visible as small dark spots, interrupted by a narrow, arcuate, subglabrous fascia slightly before middle; entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 1/2 bearing coarse punctures and moderately dense, subdepressed, white pubescence; lateral and hind margins of epimera, meso- and metasternum, and pro- and mesocoxae clothed with dense, white pubescence. Scutellum subtriangular, apex rounded, moderately sparsely clothed with appressed golden pubescence. Elytra about 2 1/3 times as long as width across humeri; sides slightly impressed before middle; apices broadly rounded; each side near base moderately gibbose; a narrow, slightly oblique, raised, eburneous fascia present on each side at about basal 1/3 from lateral margin to past middle of disk; discal surface with basal 1/3 coarsely, densely punctate, with moderately dense, golden pubescence in area of basal gibbositities, remaining 2/3 densely cribrate-punctate and finely pubescent where surface is visible, apical 1/3 obscured by dense, appressed, golden yellow pubescence; entire disk clothed with long, erect, golden hairs. Abdomen moderately densely golden yellow pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, apices indistinctly carinate; surface smooth, shining, with longitudinal bands of short, pale pubescence; meso- and metatibiae somewhat curved, carinate, compressed, strongly flattened, nearly as broad as widest part of femoral club (see Fig. 12d).

Female: Similar to male. Length 7.25–8 mm. Antennae shorter, slightly exceeding middle of elytra. Prosternum lacking coarse punctures. Abdomen somewhat less densely pubescent, with terminal sternite slightly longer than fourth, apex rounded. Metatibiae slightly less modified, about as wide as femoral club.

DIAGNOSIS. — This species, along with *E. velutinus*, may be recognized by the lack of glabrous and impunctate areas on the elytra, the wide, compressed meso- and metatibiae, and the golden yellow pubescent elytral apex and abdomen. It may be separated from *E. velutinus* by the more elongate pronotum, less prominent elytral gibbositities which do not diverge posteriorly, the unarmed fifth antennal segment, and the gener-

ally less robust form. The specific name refers to the unusual form of the tibiae.

***Euderces turnbowi*, new species**
(Fig. 55)

TYPES. — Holotype male [EMEC], allotype female, and 2 paratypes (1 male, 1 female) from MEXICO, Chiapas, 17 km W Tuxtla Gutierrez, June 21–25, 1987 (E. Giesbert, J. Wappes). Eleven additional paratypes as follows from Chiapas, MEXICO: 1 female, Pq. Nac. Sumidero, 1000 m., June 6, 1990 (H. & A. Howden); 2 males, same locality and date (B. D. Gill); 2 males, Pq. Nac. Sumidero, Coyota Mirador, 1700 m., June 17, 1989 (H. Howden); 1 male, 1 female, Pq. Nac. Sumidero, km. 11 on road, 1500 m., June 19, 1989 (Howden); 1 male, El Sumidero, June 23, 1990 (R. Turnbow); 2 males, Chicoasen, 400 m., June 8, 1990 (Gill); 1 female, 2 km S Chicoasen, Rd. to Mirador, June 18, 1989 (Howden). Six additional paratypes from GUATEMALA: 3 males, 2 females, Baja Verapaz, 19–24 km N Salamá, 4500 ft., May 25–31, 1989 (Giesbert, Wappes); 1 female, Zacapa, 16 km S San Lorenzo, 210 m, June 9, 1993 (H. & A. Howden). Paratypes are deposited with CNMN, EFGC, JEW, RHTC, HAHC.

DESCRIPTION. — *Male*: Length 6–8 mm. Integument blackish, mouthparts, antennae, femoral bases, tibial apices, and tarsi orange-brown; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae exceeding apices of elytra, third segment slightly more than twice as long as fourth, armed at apex with a short, sharp spine, apex of fourth segment with a smaller spine. Pronotum about 1 1/3 times as long as wide; sides moderately rounded, somewhat narrowed and impressed across base; disk with surface longitudinally striate and rugulose, clothed with depressed golden pubescence, which is interrupted at middle by an indistinct, transverse, subglabrous fascia, and across apex by a distinct, impunctate and glabrous band; entire surface sparsely clothed with long, erect, golden hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately dense, subdepressed, white pubescence; lateral and hind margins of prothorax, mesepimera and metasternum with wide bands of dense, white pubescence. Scutellum small, parallel-sided, apex broadly rounded, surface moderately golden pubescent. Elytra about 2 1/2 times as long as width across humeri; sides very slightly impressed before middle; api-

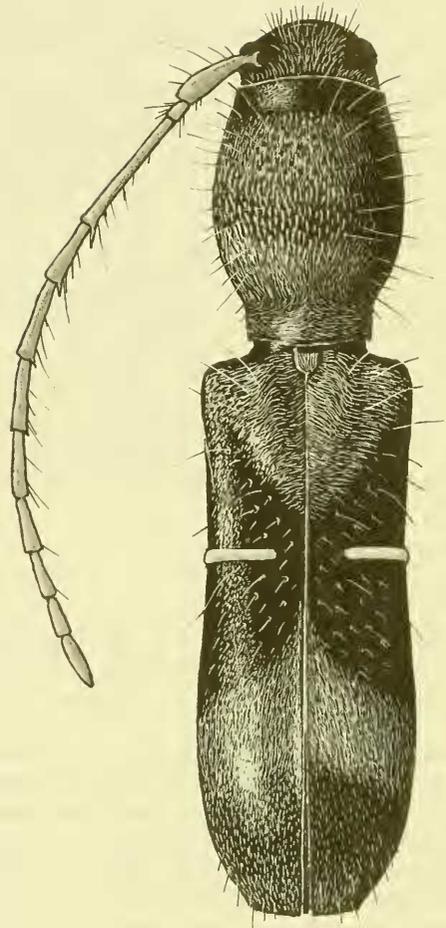


FIGURE 55. *Euderces turnbowi*, new species, female.

ces truncate, or emarginate-truncate; each side near base feebly, broadly gibbose; a narrow, transverse, raised, eburneous fascia present on each side at basal 1/3 from margin to past middle of disk; surface shining, sparsely punctate, basal 1/3 glabrous except for a distinct patch of golden pubescence covering basal gibbosities, apical 1/3 with a well-defined, broad fascia of golden pubescence which is most dense at its posterior margin, area behind fascia bearing moderately sparse, short, suberect golden hairs; entire disk sparsely clothed with long, erect, golden hairs. Abdomen shining; first sternite marked with white pubescence at sides, remaining sternites sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with

femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 6–8 mm. Antennae slightly shorter, barely reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species may be recognized by a combination of the absence of densely cribrate-punctate areas on the elytra and piceous integument. The apical pubescent chevron is quite variable, being clearly defined and margined on some specimens, much less so on others. It is a pleasure to name this species for Robert H. Turnbow, Jr., in recognition of his many years of productive work in the collection of Neotropical Cerambycidae.

***Euderces velutinus* (Fisher)**
(Fig. 56)

Elophorus velutinus Fisher, 1931:100. (TYPE LOCALITY: Prieta, Republic of Honduras.)

Euderces velutinus Chemsak & Linsley, 1975:88.

REDESCRIPTION. — *Male*: Length 8.25 mm, form somewhat robust. Integument blackish; elytra with a single pair of eburneous fasciae. Head with eyes moderately small, lobes divided; antennae slightly exceeding middle of elytra, third segment nearly three times as long as fourth, armed at apex with a long, sharp spine which is about $\frac{3}{4}$ as long as fourth segment, fourth segment with a distinct apical spine, fifth segment distinctly dentate at apex. Pronotum slightly longer than broad; sides moderately widely rounded, narrower at base than at apex; disk with surface moderately finely, longitudinally rugulose, moderately clothed with short, appressed, golden pubescence, which is interrupted by a narrow, arcuate, dark fascia slightly before middle connected with a narrow, dark vitta at middle between fascia and base; entire surface moderately sparsely clothed with long, erect, coarse hairs, which are denser at each end of premedian fascia; prosternum with basal $\frac{2}{3}$ finely granulate and pale pubescent; lateral and hind margins of epimera and metasternum clothed with dense, whitish pubescence. Scutellum subtriangular, apex narrowly rounded, clothed with appressed golden pubescence.

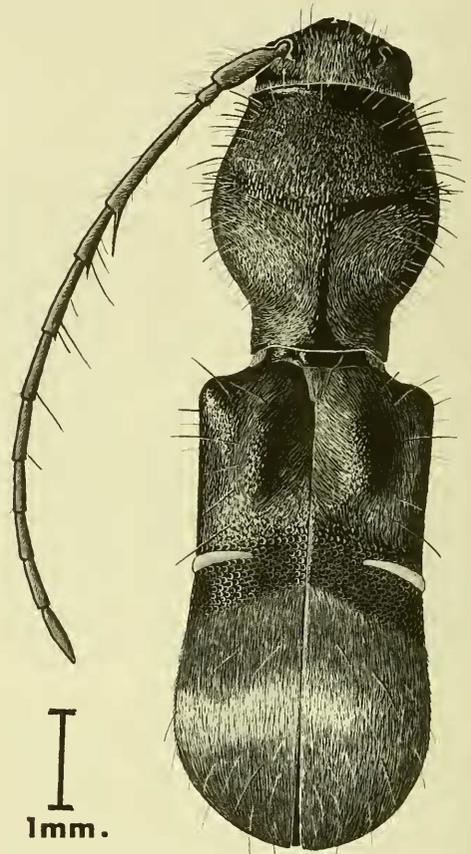


FIGURE 56. *Euderces velutinus* (Fisher), Holotype male.

Elytra slightly more than twice as long as width across humeri; sides somewhat impressed before middle, widest at apical $\frac{2}{3}$; apices broadly rounded; each side near base moderately strongly gibbose, gibbosity moderately coarsely punctate, and slightly divergent posteriorly; a slightly oblique, raised, eburneous fascia present on each side at about basal $\frac{3}{8}$ from lateral margin to about middle of disk; discal surface with basal $\frac{1}{3}$ finely, densely punctate, moderately sparsely clothed with recumbent golden pubescence, area behind eburneous fasciae densely cribrate-punctate where surface is visible, apical $\frac{1}{2}$ obscured by dense, appressed, shining, golden-yellow pubescence; entire disk clothed with long, coarse, erect, dark hairs. Abdomen moderately densely golden yellow pubescent; terminal sternite shorter than fourth, apex broadly rounded. Legs

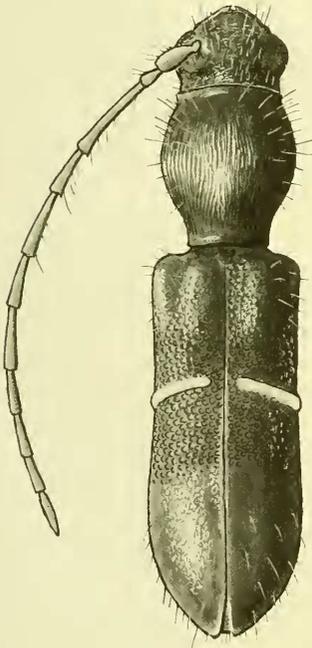
with femora moderately abruptly clavate, apices indistinctly carinate; surface smooth, shining, with longitudinal bands of short, pale pubescence; meso- and metatibiae somewhat curved, carinate, compressed, strongly flattened.

Female: Unknown.

REMARKS. — Only the type of *E. velutinus* [NMNH] was seen in this study. This specimen, though apparently a male, does not exhibit the prosternal sexual punctation usually found in males of the genus. The metatibiae are similar to those of *E. tibialis* (see Fig. 12d). The type specimen was captured in Honduras in April.

***Euderces venezuelensis*, new species**
(Figs. 2, 57)

TYPES. — Holotype male [FMNH] and 1 female paratype from VENEZUELA, Caracas Valley, May 6, 1922 (F. Psota) [FMNH].



DESCRIPTION. — *Male*: Length 4.5 mm. Integument orange-brown, head, prothorax and scutellum slightly darker brown. Head with eyes moderately small, lobes divided; antennae reaching about apical 1/4 of elytra, scape moderately short, third segment about twice as long as fourth, apex dentate, fourth and fifth segments with apices feebly dentate. Pronotum somewhat longer than broad; sides moderately rounded, impressed at base, slightly narrowed at apex; discal surface shining, moderately finely striate, basal 1/2 feebly tumid and asperate at middle; entire surface bearing long, erect, pale hairs; prosternum with basal 1/2 rugose, moderately finely scabrose-punctate, lacking distinct, large punctures, finely, pale pubescent; lateral and hind areas of mesepimera and metasternum moderately clothed with golden pubescence. Scutellum small, nearly glabrous. Elytra slightly more than 2 1/2 times as long as width across humeri; sides feebly impressed before middle; apices narrowly rounded; a slightly oblique, raised, eburneous fascia present on each side at basal 1/3 from lateral margin to near suture; disk moderately gibbose near base on each side of suture, surface with basal 2/3 coarsely, densely cribrate-punctate except at extreme base, apical 1/3 nearly impunctate, alutaceous; entire disk sparsely clothed with long, erect, pale hairs. Abdomen shining, sparsely punctate and pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, sparsely clothed with long, pale hairs.

Female: Similar to male. (Antennae broken on only specimen, but probably slightly shorter than those of male.) Abdomen with terminal sternite slightly longer than fourth, apex narrowly rounded. Length 5 mm.

REMARKS. — This species represents the southeastern extreme of the presently known distribution of *Euderces* and is one of only 5 species presently recorded from South America. *Euderces venezuelensis* may be distinguished by the combination of brown integument, shining, striate pronotum, and dentate third antennal segment. The species is named for the country of origin.

FIGURE 57. *Euderces venezuelensis*, new species, Holotype male.

***Euderces waltli*, Chevrolat, new combination**

Apelocera Waltli Chevrolat, 1862:62 (TYPE LOCALITY: Brasil.)

Eplophorus waltli Blackwelder, 1946:583.

DIAGNOSIS (Drawn from original description). — Color black; head with eyes somewhat emarginate; antennae slender, filiform, third segment apically spinose; prothorax globose, widely convex, strongly impressed at base, with a median longitudinal elevation, surface subreticulately punctate; elytra each with a basal gibbosity; and with four indistinct transverse white pubescent lines, the first under the humeri, the second oblique, not reaching the margin or the suture, the third elongate, angulate at the suture, the fourth transverse, located slightly behind middle, integument reddish between the posterior two, apical 1/4 cinereous, apices truncate; abdomen with first segment with an apical white band. Legs with femora moderately clavate. Length 7.5 mm, width 2 mm.

REMARKS. — We have been unable to locate the type specimen or material assignable to this species. As pointed out by Chemsak (1969), it is doubtfully congeneric with *Euderces* due to the lack of ebumeous elytral fasciae and moderately emarginate eyes. In his description, Chevrolat (1862) suggested a similarity to *Microclytus compressicollis* (Laporte & Gory), in the tribe Anaglyptini.

***Euderces wappesi*, new species
(Fig. 58)**

TYPES. — Holotype male [HAHC], allotype from GUATEMALA, Baja Verapaz, 14.5 km N Salamá on Pantín rd., 1620 m, May 23–June 1, 1991 (H. & A. Howden). Additional 14 paratypes, 11 from Baja Verapaz, GUATEMALA: 1 female, from type locality, May 29, 1994 (E. Giesbert); 1 female, 16 km N Salamá on Pantín rd., 1550 m., May 23, 1991 (Howdens); 1 female, 1 km S same locality, June 5, 1991 (J. Wappes); 2 males, 3 females, 19–24 km N Salamá, 4500 ft., May 25–31, 1989 (Wappes, Giesbert); 1 male, 1 female, same locality, October 23–24, 1990 (Giesbert); 1 male, 4 km W Cob n Hwy. on Pantín rd., May 25, 1991 (Howdens), and 5 from Chiapas, MEXICO: 1 female, Sumidero Canyon, September 28–October 4, 1986 (Wappes); 1 male, 1 female, same locality, October 2, 1986 (R. Turnbow); 1 female, 8 km N Bochil, July 17, 1962 (J. M. Campbell); 1 female, 8 mi. SE Teopisca, July 9, 1969 (Campbell &

Bright). Paratypes deposited with EMEC, CNMN, EFGC, JEW, HAHC, RHTC.

DESCRIPTION. — *Male:* Length 5.5–7 mm. Integument blackish, mouthparts and tarsi reddish brown, extreme apices of elytra usually somewhat pale; elytra with a single pair of ebumeous fasciae. Head with eyes moderately small, lobes divided; antennae reaching about to apical 2/3 of elytra, third segment more than 2 1/2 times as long as fourth, armed at apex with a moderately long, acute spine which is slightly more than 1/2 as long as fourth segment, apex of fourth segment with a distinct, short spine. Pronotum about 1 2/5 as long as wide; sides

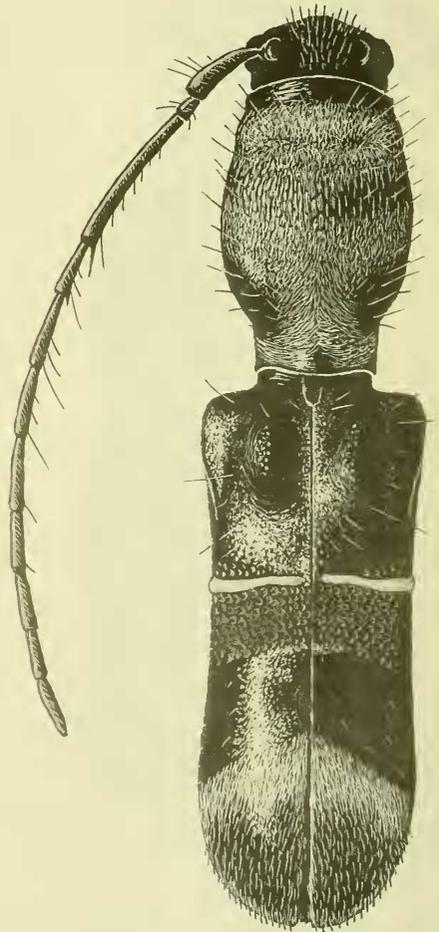


FIGURE 58. *Euderces wappesi*, new species, male.

rounded, basal 1/4 widely impressed; disk with surface longitudinally rugulose and asperate before middle, basal 1/4 smooth, nearly impunctate, an indistinct, wide fascia of moderately dense, appressed, golden pubescence across apical 1/5, formed in part by whorls on each side of middle, and less dense areas of appressed golden pubescence across middle and near base, middle of base and lateral rounded area on each side of basal 1/4 glabrous; entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 3/5 bearing coarse punctures and moderately dense, subdepressed, white pubescence; lateral and hind margins of epimera, mesocoxae and hind margin of metasternum clothed with dense, white pubescence. Scutellum rounded, impunctate, glabrous. Elytra about 2 1/2 times as long as width across humeri; sides slightly impressed before middle; apices rounded; each side near base with a strong, highly elevated gibbosity which is moderately coarsely, densely punctate at its apex; a narrow, transverse, raised, eburneous fascia present on each side slightly before basal 1/3 from lateral margin to very near suture; discal surface with basal 1/3 coarsely, obsoletely punctate, nearly glabrous, premedian 1/6 densely cribrate-punctate behind eburneous fasciae, apical 1/2 impunctate, somewhat alutaceous, apical 1/3 clothed with appressed pale golden pubescence which is denser anteriorly; entire disk clothed with long, erect, golden hairs. Abdomen shining, very sparsely punctate, sparsely pubescent laterally; terminal sternite slightly shorter than fourth, apex broadly rounded. Legs with femora moderately abruptly clavate, indistinctly carinate near apices; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 6–7 mm. Antennae slightly shorter, reaching middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species is very close to *E. sculpticollis*, differing with the latter in having a slightly more basad orientation of the elytral eburneous fasciae, the shining basal half of the elytra with somewhat more abruptly raised basal gibbosities and the lack of distinct pubescence surrounding them, the more extensive striations of the pronotum, and the lack of an oblique densely pubescent mark on each side of the first

abdominal segment. It is a pleasure to dedicate this species to James E. Wappes in recognition of his years of interest in the Neotropical Cerambycidae.

***Euderces westcotti* Hovore**

(Fig. 59)

Euderces westcotti Hovore, 1988:13. (TYPE LOCALITY: Santa Victoria trail, W. La Laguna, Baja California Sur, Mexico.)

MATERIAL EXAMINED. — 1 female paratype from type locality, August 30–31, 1977 (R. L. Westcott) [FTHC].

REDESCRIPTION. — *Male*: Length 4–5 mm. Integument blackish to dark brown, scape, mouthparts, bases of femora, and tarsi dark reddish brown; elytra with two pairs of eburneous markings. Head with eyes moderately prominent, lobes divided, upper lobe small; antennae reaching to about middle of elytra, third segment slightly longer than scape, about 1 1/2 times as long as fourth segment, segments unarmed and



FIGURE 59. *Euderces westcotti* Hovore, female.

slightly swollen apically. Pronotum about as long as wide; sides broadly rounded, basal 1/8 narrowed and deeply impressed; apices somewhat narrowed; discal surface somewhat shining, irregularly striolate, asperate-striolate at base, with a triangular patch of subdepressed, pale pubescence in middle of base, entire surface with scattered, long, erect, pale hairs; prosternum with posterior 2/3 bearing coarse punctures and pale pubescence; lateral margins of mesepimera and hind margin of metasternum densely pale pubescent. Scutellum with apex narrowly rounded, surface densely pale pubescent. Elytra about twice as long as width across humeri; sides subparallel, slightly narrowed behind humeri, slightly wider behind middle; apices rounded; each side near base with a small, moderately distinct gibbosity; a narrow, transverse, raised, eburneous fascia present from margin to near suture on each side at about basal 1/3, an additional shorter, oblique, raised, eburneous macula present on each side near suture at basal 1/5 extending from base of humerus to posterior side of basal gibbosity; surface with basal 3/5 densely cribrate-punctate except for the shining, nearly impunctate humeri, apical 2/5 impunctate, alutaceous, with a slender, transverse, chevron-shaped fascia of short, fine, appressed, whitish pubescence across apical 1/3; entire disk sparsely clothed with long, erect hairs. Abdomen shining, sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora abruptly clavate; surface smooth, shining, very sparsely pubescent.

Female: Similar to male. Length 5 mm. Antennae slightly shorter, not reaching middle of elytra. Prosternum rugose, lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species differs from *E. parallelus* in several elytral characters: the more anteriorly placed and obliquely directed anterior eburneous marking, the more distinct basal gibbositities, and the slender, fairly distinct pubescent chevron at the apical 1/3. Flight appears to be during the brief wet season of southern Baja California in August and September.

***Euderces yucatecus* (Bates)**
(Figs. 3, 60)

Apilocera yucateca Bates, 1892:165. (TYPE LOCALITY: Temax, N. Yucatan, Mexico.)

Apelocera yucateca Aurivillius, 1912:420.

Eplophorus yucateca Blackwelder, 1946:583.

Euderces yucateca Chemsak & Linsley, 1975:88.

REDESCRIPTION. — *Male*: Length 5.5–7 mm. Integument reddish brown, elytra usually infuscated at sides and toward apex; elytra with a single pair of eburneous fasciae. Head with eyes rather small, lobes divided, upper lobes small; antennae slightly exceeding elytral apices, third segment about twice as long as fourth, armed at apex with a long, feebly sinuate, sharp spine which is nearly as long as fourth segment, apex of fourth segment minutely dentate. Pronotum with sides broadly rounded, widest at middle, narrowed and impressed across base and apex;

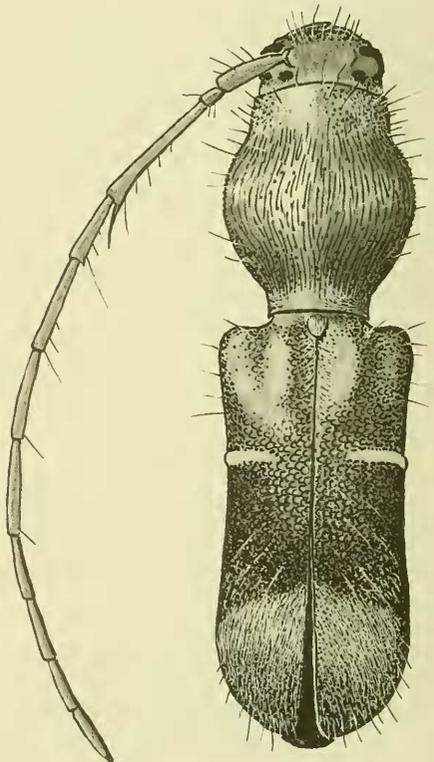


FIGURE 60. *Euderces yucatecus* (Bates), male.

disk slightly flattened, surface finely, longitudinally striate, rugulose, and asperate; base and apex clothed with short, appressed, pale pubescence, entire surface moderately sparsely clothed with long, erect, pale hairs; prosternum with posterior 2/3 coarsely punctate and moderately densely pale pubescent; lateral margins of mesepimera and hind margin of metasternum clothed with dense, white pubescence. Scutellum rounded at apex, densely clothed with appressed, pale golden pubescence. Elytra about 2 1/4 times as long as width across humeri; sides subparallel; apices subtruncate with angles minutely, feebly dentate; each side near base moderately gibbose; a narrow, transverse, raised, eburneous fascia on each side at basal 1/3 from lateral margin to about middle of disk; discal surface with basal 1/3 shining, coarsely, densely punctate, tops of gibbositities asperate-punctate, sparsely clothed with subdepressed pale pubescence, median 1/4 dull, densely cribrate-punctate behind eburneous fasciae, remainder of elytra impunctate, moderately alutaceous, with a fascia of appressed whitish pubescence across apical 1/4, area behind fascia very fine, pale golden pubescent; entire disk clothed with long, erect, golden hairs. Abdomen shining, sparsely pubescent; terminal sternite nearly as long as fourth, apex broadly rounded. Legs with femora moderately abruptly clavate; surface smooth, shining, with longitudinal bands of short, pale pubescence.

Female: Similar to male. Length 5–7 mm. Antennae shorter, slightly exceeding middle of elytra. Prosternum lacking coarse punctures. Abdomen with terminal sternite slightly longer than fourth, apex rounded.

REMARKS. — This species appears to be limited to the Yucatán Peninsula of Mexico (see Fig. 3) and may be recognized by the reddish brown integument and by the long antennae of the males. Flight occurs throughout the year.

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